



#1/seq/A

1

SEQUENCE LISTING

<110> O'Brien, Timothy

<120> Repeat Sequences of the CA125 Gene and Their Use for Diagnostic and Therapeutic Interventions

<130> 40715-258841

<140> US 09/965,738

<141> 2001-09-27

<150> US 60/284,175

<151> 2001-04-17

<160> 308

<170> PatentIn version 3.1

<210> 1

<211> 13

<212> PRT

<213> Homo sapiens

<400> 1

Gln His Pro Gly Ser Arg Lys Phe Lys Thr Thr Glu Gly
1 5 10

<210> 2

<211> 11

<212> PRT

<213> Homo sapiens

<400> 2

Phe	Leu	Thr	Val	Glu	Arg	Val	Leu	Gln	Gly	Leu
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<210> 3

<211> 8

<212> PRT

<213> Homo sapiens

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Asp	Thr	Tyr	Val	Gly	Pro	Leu	Tyr
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<210> 4

<211> 8

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<213> Homo sapiens

<400> 4

Asp	Gly	Ala	Ala	Asn	Gly	Val	Asp
1				5			

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<211> 240

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(240)

<223>

<400> 5

cgt	cga	cct	ggc	tct	aga	aag	ttt	aac	acc	acg	gag	aga	gtc	ctt	cag	48
Arg	Arg	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	
1				5					10					15		

ggc	ctg	ctc	agg	cct	gtg	ttc	aag	aac	acc	agt	gtt	ggc	cct	ctg	tac	96
Gly	Leu	Leu	Arg	Pro	Val	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	
			20					25					30			

tct	ggc	tgc	aga	ctg	acc	ttg	ctc	agg	ccc	aag	aag	gat	ggg	gca	gcc	144
Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Lys	Lys	Asp	Gly	Ala	Ala	
		35					40					45				

acc	aaa	gtg	gat	gcc	atc	tgc	acc	tac	cgc	cct	gat	ccc	aaa	agc	cct	192
Thr	Lys	Val	Asp	Ala	Ile	Cys	Thr	Tyr	Arg	Pro	Asp	Pro	Lys	Ser	Pro	
	50					55					60					

gga	ctg	gac	aga	gag	cag	cta	tac	tgg	gag	ctg	agc	cag	ggg	gat	gca	240
Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Gly	Asp	Ala	
65					70					75					80	

<210> 6

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6

Arg	Arg	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln
1				5					10					15	

Gly	Leu	Leu	Arg	Pro	Val	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr
			20					25					30		

Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Lys	Lys	Asp	Gly	Ala	Ala
		35					40					45			

Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro
 50 55 60

Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Gly Asp Ala
 65 70 75 80

<210> 7

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Primer

<400> 7

ggagaggggtt ctgcagggtc

20

<210> 8

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 8

Glu Arg Val Leu Gln Gly
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<210> 9

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Primer

<400> 9

gtgaatggta tcaggagagg

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<210> 10

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 10

Pro Leu Leu Ile Pro Phe
1 5

<210> 11

<211> 131

<212> PRT

<213> Homo sapiens

<400> 11

Glu Arg Val Leu Gln Gly Leu Leu Arg Ser Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Asp Gly Thr Ala Thr Gly Val Asp Ala Ile Cys Thr His His Pro
35 40 45

6

Asp Pro Lys Ser Pro Arg Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ala Leu Asp
 65 70 75 80

Asn Asp Ser Leu Phe Val Asn Gly Phe Thr His Arg Ser Ser Val Ser
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Pro Thr Val Tyr Leu Gly Ala Ser Lys
 100 105 110

Thr Pro Ala Ser Ile Phe Gly Pro Ser Ala Ala Ser Pro Leu Leu Ile
 115 120 125

Pro Phe Thr
 130

<210> 12

<211> 130

<212> PRT

<213> Homo sapiens

<400> 12

Glu Arg Val Leu Gln Gly Leu Leu Met Pro Leu Phe Lys Asn Thr Ser
 1 5 10 15

Val Ser Ser Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Asp Gly Ala Ala Thr Arg Ala Asp Ala Val Cys Thr His Arg Pro
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu
 50 55 60

Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg His Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Met Thr
 85 90 95

Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg
 100 105 110

Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile
 115 120 125

Pro Phe
 130

<210> 13

<211> 132

<212> PRT

<213> Homo sapiens

<400> 13

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Ile Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Ser Glu
 20 25 30

Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Ile His Arg Leu
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Leu Ser Ser Pro Thr Ile Met Ala Ala Gly Pro Leu
 115 120 125

Leu Ile Pro Phe
 130

<210> 14

<211> 130

<212> PRT

<213> Homo sapiens

<400> 14

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys Ser His Arg Leu
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala
 85 90 95

Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Val Pro Leu Leu Ile
 115 120 125

Pro Phe
130

<210> 15

<211> 130

<212> PRT

<213> Homo sapiens

<400> 15

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn Ser Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu
20 25 30

Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His His Leu
35 40 45

Asn Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu
50 55 60

Ser Gln Met Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu
85 90 95

Thr Thr Ser Thr Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr Pro Ser Pro Val Pro Ser Pro Thr Thr Ala Gly Pro Phe Leu Ile
115 120 125

Pro Phe
130

<210> 16

<211> 130

<212> PRT

<213> Homo sapiens

<400> 16

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Ala Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu
35 40 45

Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
100 105 110

Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Ile
115 120 125

Pro Phe
130

<210> 17

<211> 130

<212> PRT

<213> Homo sapiens

<400> 17

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
100 105 110

Thr Pro Ala Ser Leu Pro Gly His Ile Val Pro Gly Pro Leu Leu Ile
115 120 125

Pro Phe
130

<210> 18

<211> 131

<212> PRT

<213> Homo sapiens

<400> 18

Glu Arg Val Leu Gln Gly Leu Leu Thr Pro Leu Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Val
 35 40 45

Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asp Gly Phe Asn Pro Trp Ser Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly
 100 105 110

Thr Pro Ser Pro Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile
 115 120 125

Pro Phe Thr
 130

<210> 19

<211> 131

<212> PRT

<213> Homo sapiens

<400> 19

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
85 90 95

Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
100 105 110

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Val
115 120 125

Pro Phe Thr
130

<210> 20

<211> 130

<212> PRT

<213> Homo sapiens

<400> 20

Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu
20 25 30

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
35 40 45

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly
 100 105 110

Thr Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe
 130

<210> 21

<211> 131

<212> PRT

<213> Homo sapiens

<400> 21

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Leu Phe Lys Asn Thr Ser
 1 5 10 15

Ile Gly Pro Leu Tyr Ser Ser Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Asp Lys Ala Ala Thr Arg Val Asp Ala Ile Cys Thr His His Pro
 35 40 45

Asp Pro Gln Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asp Gly Phe Thr His Trp Ser Pro Ile Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Ile Val Asn Leu Gly Thr Ser Gly
 100 105 110

Ile Pro Pro Ser Leu Pro Glu Thr Thr Ala Thr Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr
 130

<210> 22

<211> 282

<212> PRT

<213> Homo sapiens

<400> 22

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser
 1 5 10 15

Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro
 35 40 45

Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Met Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Ser Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Met
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser
 260 265 270

Phe Pro Gly His Thr Glu Pro Gly Pro Leu
 275 280

<210> 23

<211> 286

<212> PRT

<213> Homo sapiens

<400> 23

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser
1 5 10 15

Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu
20 25 30

Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro
35 40 45

Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
50 55 60

Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu
85 90 95

Thr Thr Ser Thr Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr Pro Ser Pro Val Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Met Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala
180 185 190

Ala Thr Arg Val Asp Ala Val Cys Thr Gln Arg Pro Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr
 210 215 220

His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Leu
 225 230 235 240

Tyr Val Asn Gly Leu Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr
 245 250 255

Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser
 260 265 270

Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 24

<211> 250

<212> PRT

<213> Homo sapiens

<400> 24

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Thr Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
 100 105 110

Thr Pro Phe Ser Leu Pro Ser Pro Ala Thr Ala Gly Pro Leu Leu Val
 115 120 125

Leu Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Lys Tyr Glu Glu Asp
 130 135 140

Met His Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Thr Leu Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Ser Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
 195 200 205

Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Trp Ile Pro
 245 250

<210> 25

<211> 286

<212> PRT

<213> Homo sapiens

<400> 25

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
 85 90 95

Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
 100 105 110

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Ile Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn
 130 135 140

Met His His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His His Leu Asn Pro Gln Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu Ser Gln Met Thr
 210 215 220

Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu Thr Thr Ser Thr
 245 250 255

Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Pro
 260 265 270

Val Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 26

<211> 286

<212> PRT

<213> Homo sapiens

<400> 26

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Ser Arg Gln Ser Ser Met Thr
 85 90 95

Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg
 100 105 110

Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Asn Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Lys Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala Pro Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Pro Ser Pro Thr Thr Ala Val Pro Leu Leu Ile Pro Phe
 275 280 285

<211> 286

<212> PRT

<213> Homo sapiens

<400> 27

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Phe Gly
100 105 110

Thr Pro Ala Ser Leu His Gly His Thr Ala Pro Gly Pro Val Leu Val
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
130 135 140

Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala
 180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 210 215 220

Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser
 260 265 270

Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 28

<211> 286

<212> PRT

<213> Homo sapiens

<400> 28

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu
 35 40 45

Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
100 105 110

Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Val
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
130 135 140

Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala
180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn
195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
210 215 220

Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu
225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr
245 250 255

Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser
260 265 270

Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 29

<211> 281

<212> PRT

<213> Homo sapiens

<400> 29

Glu Arg Val Leu Gln Gly Leu Leu Thr Pro Leu Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Val
 35 40 45

Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Trp Ser Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn
 130 135 140

Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys His Gly Ala
180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
195 200 205

Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
210 215 220

Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
225 230 235 240

Tyr Val Asn Gly Phe Thr His Trp Ile Pro Val Pro Thr Ser Ser Thr
245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Gly Ser Gly Thr Pro Ser Ser Leu
260 265 270

Pro Ser Pro Thr Thr Ala Gly Pro Leu
275 280

<210> 30

<211> 217

<212> PRT

<213> Homo sapiens

<400> 30

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Leu Phe Lys Asn Thr Ser
1 5 10 15

Ile Gly Pro Leu Tyr Ser Ser Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Asp Lys Ala Ala Thr Arg Val Asp Ala Ile Cys Thr His His Pro
 35 40 45

Asp Pro Gln Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asp Gly Phe Thr His Trp Ser Pro Ile Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Ile Val Asn Leu Gly Thr Ser Gly
 100 105 110

Ile Pro Pro Ser Leu Pro Glu Thr Thr Ala Thr Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Pro Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr
 210 215

<210> 31

<211> 286

<212> PRT

<213> Homo sapiens

<400> 31

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys
20 25 30

Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro
35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr Pro Val Ser Lys Pro Gly Pro Ser Ala Ala Ser Pro Leu Leu Val
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
130 135 140

Met His Arg Pro Gly Ser Arg Lys Phe Asn Ala Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr
 245 250 255

Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser
 260 265 270

Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 32

<211> 288

<212> PRT

<213> Homo sapiens

<400> 32

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys
 20 25 30

Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr Pro Val Ser Lys Pro Gly Pro Ser Ala Ala Ser Pro Leu Leu Ile
115 120 125

Pro Phe Thr Ile Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn
130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala
180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
195 200 205

Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
210 215 220

Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser Thr Thr Ser Thr
245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser
260 265 270

Leu Ser Ser Pro Thr Ile Met Ala Ala Gly Pro Leu Leu Ile Pro Phe
275 280 285

<210> 33

<211> 284

<212> PRT

<213> Homo sapiens

<400> 33

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
35 40 45

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Cys Glu Leu
50 55 60

Ser Gln Leu Thr His Asp Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro
85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly
100 105 110

Thr Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile
115 120 125

Pro Phe Thr Phe Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn
130 135 140

Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys His Glu Ala
180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Val Asp Pro Ile Gly
195 200 205

Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr
210 215 220

Asn Ser Ile His Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu
225 230 235 240

Tyr Val Asn Gly Phe Asn Pro Arg Ser Ser Val Pro Thr Thr Ser Thr
245 250 255

Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser
260 265 270

Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile
275 280

<210> 34

<211> 288

<212> PRT

<213> Homo sapiens

<400> 34

Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Ser Lys Asn Ser Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu
20 25 30

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
35 40 45

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly
 100 105 110

Thr Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Val Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn
 130 135 140

Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala
 180 185 190

Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 210 215 220

Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser Thr Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Ser Ser Pro Thr Ile Met Ala Ala Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 35

<211> 274

<212> PRT

<213> Homo sapiens

<400> 35

Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser
 1 5 10 15

Val Gly Ser Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Val Cys Thr His Arg Pro
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu
 50 55 60

Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg His Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Met Thr
 85 90 95

Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg
 100 105 110

Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Val
 115 120 125

Leu Phe Thr Ile Asn Phe Thr Ile Thr Asn Gln Arg Tyr Glu Glu Asn
 130 135 140

36

Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala
180 185 190

Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser
195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
210 215 220

His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Gln Asp Arg Asp Ser Leu
225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro Thr Thr Ser Ile
245 250 255

Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly Thr Pro Ala Ser
260 265 270

Leu Pro

<210> 36

<211> 386

<212> PRT

<213> Homo sapiens

<400> 36

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser
1 5 10 15

Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
 85 90 95

Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
 100 105 110

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Val
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Ala
 130 135 140

Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Arg Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Arg Val Asp Ala Ala Cys Thr Tyr Arg Pro Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Val Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Asn Pro Arg Ser Ser Val Pro Thr Thr Ser Thr
245 250 255

Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser
260 265 270

Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu
275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro
290 295 300

Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu
305 310 315 320

Arg Pro Leu Phe Lys Asn Thr Ser Ile Gly Pro Leu Tyr Ser Ser Cys
325 330 335

Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Lys Ala Ala Thr Arg Val
340 345 350

Asp Ala Ile Cys Thr His His Pro Asp Pro Gln Ser Pro Gly Leu Asn
355 360 365

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Ile Thr
370 375 380

Glu Leu
385

<210> 37

<211> 438

<212> PRT

<213> Homo sapiens

<400> 37

Glu Arg Val Leu His Gly Leu Leu Thr Pro Leu Phe Lys Asn Thr Arg
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Val
 35 40 45

Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Trp Ser Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn
 130 135 140

Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Phe Lys Pro Glu Lys His Glu Ala
 180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly
 195 200 205

Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro Thr Thr Ser Ile
 245 250 255

Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly Thr Pro Ala Ser
 260 265 270

Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr
 290 295 300

Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu
 305 310 315 320

Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
 325 330 335

Arg Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala Ala Thr Gly Val
 340 345 350

Asp Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn Pro Gly Leu Asp
 355 360 365

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Arg Gly Ile Ile
 370 375 380

Glu Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu Tyr Val Asn Gly
 385 390 395 400

Phe Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr Pro Gly Thr Ser
 405 410 415

Thr Val His Leu Gly Thr Ser Glu Ile His Pro Ser Leu Pro Arg Pro
 420 425 430

Ile Val Pro Gly Pro Leu
 435

<210> 38

<211> 420

<212> PRT

<213> Homo sapiens

<400> 38

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys
1 5 10 15

Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn
20 25 30

Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser
35 40 45

Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg
50 55 60

Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr
65 70 75 80

Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr
85 90 95

Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro
100 105 110

Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met
115 120 125

Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Ser Val Leu Gln
130 135 140

Gly Leu Leu Thr Pro Leu Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr
145 150 155 160

Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu Lys Asp Gly Ala Ala
 165 170 175

Thr Gly Val Asp Ala Ile Cys Thr His His Leu Asn Pro Gln Ser Pro
 180 185 190

Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu Ser Gln Met Thr Asn
 195 200 205

Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr
 210 215 220

Val Asn Gly Phe Thr His Arg Ser Leu Gly Leu Thr Thr Ser Thr Pro
 225 230 235 240

Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Pro Val
 245 250 255

Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn
 260 265 270

Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro Gly
 275 280 285

Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu Gln Gly Leu Leu Arg
 290 295 300

Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
 305 310 315 320

Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp
 325 330 335

Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg
 340 345 350

Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu
 355 360 365

Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe
 370 375 380

Thr Gln Arg Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Pro Thr
 385 390 395 400

Val Asp Leu Gly Thr Ser Gly Thr Pro Val Ser Lys Pro Gly Pro Ser
 405 410 415

Ala Ala Ser Pro
 420

<210> 39

<211> 439

<212> PRT

<213> Homo sapiens

<400> 39

Glu Arg Val Leu Gln Gly Pro Leu Ser Pro Ile Phe Lys Asn Ser Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
 35 40 45

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly
 100 105 110

Thr Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Asn Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Cys Glu Leu Ser Gln Leu Thr
 210 215 220

His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser
 260 265 270

Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr
 290 295 300

Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu
 305 310 315 320

Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
 325 330 335

Arg Leu Thr Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr Gly Val
340 345 350

Asp Ala Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly Pro Gly Leu Asp
355 360 365

Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser Val Thr
370 375 380

Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
385 390 395 400

Phe Thr His Arg Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Ser
405 410 415

Ala Val His Leu Glu Thr Ser Gly Thr Pro Ala Ser Leu Pro Gly His
420 425 430

Thr Ala Pro Gly Pro Leu Leu
435

<210> 40

<211> 424

<212> PRT

<213> Homo sapiens

<400> 40

Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg
1 5 10 15

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Tyr Thr His
20 25 30

Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp
35 40 45

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
 50 55 60

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Thr Ser
 65 70 75 80

Ala Pro Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr
 85 90 95

Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Ser Ala Gly Pro Leu
 100 105 110

Leu Ile Pro Phe Thr Ile Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu
 115 120 125

Glu Asn Met His His Pro Gly Ser Arg Lys Phe Asn Thr Met Glu Arg
 130 135 140

Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly
 145 150 155 160

Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp
 165 170 175

Gly Val Ala Thr Arg Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro
 180 185 190

Lys Ile Pro Gly Leu Asp Arg Gln Gln Leu Tyr Trp Glu Leu Ser Gln
 195 200 205

Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp
 210 215 220

Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro Thr Thr
 225 230 235 240

Ser Thr Pro Gly Thr Phe Thr Val Gln Pro Glu Thr Ser Glu Thr Pro
 245 250 255

Ser Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu Pro Phe
 260 265 270

Thr Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp Met His
 275 280 285

Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly
 290 295 300

Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser
 305 310 315 320

Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr
 325 330 335

Gly Val Asp Ala Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly Pro Gly
 340 345 350

Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser
 355 360 365

Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val
 370 375 380

Asn Gly Phe Asn Pro Trp Ser Ser Val Pro Thr Thr Ser Thr Pro Gly
 385 390 395 400

Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser Leu Pro
 405 410 415

Gly His Thr Ala Pro Val Pro Leu
 420

<210> 41

<211> 418

<212> PRT

<213> Homo sapiens

<400> 41

Thr Leu Leu Arg Pro Lys Lys Asp Gly Val Ala Thr Gly Val Asp Ala
1 5 10 15

Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu
20 25 30

Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu
35 40 45

Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr
50 55 60

His Gln Ser Ser Val Ser Thr Thr Ser Thr Pro Gly Thr Ser Thr Val
65 70 75 80

Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser Leu Ser Ser Pro Thr Ile
85 90 95

Met Ala Ala Gly Pro Leu Leu Ile Pro Phe Thr Ile Asn Phe Thr Ile
100 105 110

Thr Asn Leu Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys
115 120 125

Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu Met Pro Leu Phe
130 135 140

Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys Arg Leu Thr Leu
145 150 155 160

Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Val Cys
165 170 175

Thr His Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu
180 185 190

Tyr Trp Lys Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro
195 200 205

Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg
210 215 220

Ser Ser Met Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val
225 230 235 240

Gly Thr Ser Gly Thr Pro Ser Ser Ser Pro Ser Pro Thr Thr Ala Gly
245 250 255

Pro Leu Leu Met Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln
260 265 270

Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met
275 280 285

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
290 295 300

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
305 310 315 320

Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu
325 330 335

Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
340 345 350

Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp
355 360 365

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
370 375 380

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
385 390 395 400

Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Ile
405 410 415

Pro Phe

<210> 42

<211> 443

<212> PRT

<213> Homo sapiens

<400> 42

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Asp Gly Val Ala Thr Arg Val Asp Ala Ile Cys Thr His Arg Pro
35 40 45

Asp Pro Lys Ile Pro Gly Leu Asp Arg Gln Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Thr Pro Gly Thr Phe Thr Val Gln Pro Glu Thr Ser Glu
100 105 110

Thr Pro Ser Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp
130 135 140

Met His Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Gly Leu Leu Met Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Gln Glu Ala
 180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Ser Glu
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Ser Gly Val Leu Cys Pro Pro Pro Ser
 245 250 255

Ile Leu Gly Ile Phe Thr Val Gln Pro Glu Thr Phe Glu Thr Pro Ser
 260 265 270

Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu Pro Phe Thr
 275 280 285

Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp Met His Arg
 290 295 300

Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 305 310 315 320

Leu Met Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
 325 330 335

Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Gln Glu Ala Ala Thr Gly
 340 345 350

Val Asp Thr Ile Cys Thr His Arg Val Asp Pro Ile Gly Pro Gly Leu
 355 360 365

Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile
 370 375 380

Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn
 385 390 395 400

Gly Phe Asn Pro Trp Ser Ser Val Pro Thr Thr Ser Thr Pro Gly Thr
 405 410 415

Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser Leu Pro Gly
 420 425 430

His Thr Ala Pro Val Pro Leu Leu Ile Pro Phe
 435 440

<210> 43

<211> 442

<212> PRT

<213> Homo sapiens

<400> 43

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser
 1 5 10 15

Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro
 35 40 45

Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Met Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Ser Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Met
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu Ser Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 210 215 220

Asn Asp Ile Glu Glu Val Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Phe Val Ala Pro Thr Ser Thr
 245 250 255

Leu Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Pro Ser Pro Thr Thr Gly Val Pro Leu Leu Ile Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro
 290 295 300

Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu Gln Gly Leu Leu
 305 310 315 320

Met Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys
325 330 335

Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val
340 345 350

Val Ala Val Cys Thr His Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp
355 360 365

Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr His Gly Ile Thr
370 375 380

Glu Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Leu Tyr Val Asn Gly
385 390 395 400

Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr Pro Asp Thr Ser
405 410 415

Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser Leu Ser Gly Pro
420 425 430

Thr Thr Ala Ser Pro Leu Leu Ile Pro Phe
435 440

<210> 44

<211> 442

<212> PRT

<213> Homo sapiens

<400> 44

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
 85 90 95

Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
 100 105 110

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser Leu Glu Tyr Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Ser Ser
 180 185 190

Thr Met Ala Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro Glu Asp
 195 200 205

Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Asn Leu Thr
 210 215 220

Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Phe Met Pro Thr Thr Ser Thr
 245 250 255

Leu Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Ser Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Met Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr
 290 295 300

Gly Ser Arg Lys Phe Asn Thr Met Glu Ser Val Leu Gln Gly Leu Leu
 305 310 315 320

Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
 325 330 335

Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Gly Val
 340 345 350

Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn
 355 360 365

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu
 370 375 380

Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 385 390 395 400

Phe Thr His Gln Ser Ser Val Ser Thr Thr Ser Thr Pro Gly Thr Ser
 405 410 415

Thr Val Asp Pro Arg Thr Ser Gly Thr Pro Ser Ser Leu Ser Ser Pro
 420 425 430

Thr Ile Met Ala Ala Gly Pro Leu Leu Ile
 435 440

<210> 45

<211> 379

<212> PRT

<213> Homo sapiens

<400> 45

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser
1 5 10 15

Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys Ser His Arg Leu
35 40 45

Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala
85 90 95

Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Val Pro Leu Leu Ile
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Lys Tyr Glu Glu Asp
130 135 140

Met His Cys Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
145 150 155 160

Gln Ser Leu Phe Gly Pro Met Phe Lys Asn Thr Ser Val Gly Pro Leu
165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Phe Arg Ser Glu Lys Asp Gly Ala
180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
 195 200 205

Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Thr Ser Ala Pro Asn Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Pro Ser Pro Thr Ser Ala Gly Pro Leu Leu Val Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr
 290 295 300

Gly Ser Arg Lys Phe Asn Thr Met Glu Ser Val Leu Gln Gly Leu Leu
 305 310 315 320

Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
 325 330 335

Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Val
 340 345 350

Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn
 355 360 365

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu
 370 375

<210> 46

<211> 439

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(439)

<223> Any "X" = any amino acid

<400> 46

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu
35 40 45

Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
100 105 110

Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Ile
115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn
130 135 140

Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu
145 150 155 160

Gln Gly Cys Leu Val Pro Cys Ser Arg Asn Thr Asn Val Gly Leu Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 195 200 205

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 210 215 220

Xaa Xaa Xaa Xaa Xaa Xaa Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala Pro Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Pro Ser Pro Thr Thr Val Pro Leu Leu Val Pro Phe Thr Leu Asn
 275 280 285

Phe Thr Ile Thr Asn Leu Gln Tyr Gly Glu Asp Met Arg His Pro Gly
 290 295 300

Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Gly
 305 310 315 320

Pro Leu Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
 325 330 335

Leu Ile Ser Leu Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp
 340 345 350

Ala Ile Cys Thr His His Leu Asn Pro Gln Ser Pro Gly Leu Asp Arg
 355 360 365

Glu Gln Leu Tyr Trp Gln Leu Ser Gln Val Thr Asn Gly Ile Lys Glu
 370 375 380

Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe
 385 390 395 400

Thr His Arg Ser Ser Gly Leu Thr Thr Ser Thr Pro Trp Thr Ser Thr
 405 410 415

Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Pro Val Pro Ser Pro Thr
 420 425 430

Thr Ala Gly Pro Leu Leu Ile
 435

<210> 47

<211> 1366

<212> PRT

<213> Homo sapiens

<400> 47

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser
 1 5 10 15

Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro
 35 40 45

Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Met Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Ser Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Met
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Pro Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser
 260 265 270

Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu
 275 280 285

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro
 290 295 300

Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu Gln Gly Leu Leu
 305 310 315 320

Asn Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys
 325 330 335

Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Met
 340 345 350

Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg Pro Gly Leu Asp
 355 360 365

Arg Glu Gln Leu Tyr Cys Glu Leu Ser Gln Leu Thr His Asn Ile Thr
 370 375 380

Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
 385 390 395 400

Phe Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser
 405 410 415

Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser Phe Pro Gly His
 420 425 430

Thr Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile
 435 440 445

Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys
 450 455 460

Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe
 465 470 475 480

Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu
 485 490 495

Leu Arg Pro Glu Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys
 500 505 510

Thr Leu Arg Leu Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu
 515 520 525

Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro
 530 535 540

Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg
 545 550 555 560

Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu
 565 570 575

Glu Thr Ser Gly Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly
 580 585 590

Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln
 595 600 605

Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr
 610 615 620

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 625 630 635 640

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 645 650 655

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 660 665 670

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 675 680 685

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 690 695 700

Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
 705 710 715 720

Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
 725 730 735

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile
 740 745 750

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 755 760 765

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu
 770 775 780

Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser Leu Glu Tyr Leu
 785 790 795 800

Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu Lys Asp Ser Ser
 805 810 815

Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro Glu Asp
 820 825 830

Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Asn Leu Thr
 835 840 845

Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 850 855 860

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Met Pro Thr Thr Ser Thr
 865 870 875 880

Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly Thr Pro Ser Ser
 885 890 895

Ser Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Met Pro Phe Thr Leu
 900 905 910

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr
 915 920 925

Gly Ser Arg Lys Phe Asn Thr Met Glu Ser Val Leu Gln Gly Leu Leu
 930 935 940

Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
 945 950 955 960

Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Gly Val
 965 970 975

Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn
 980 985 990

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu
 995 1000 1005

Glu Val Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn
 1010 1015 1020

Gly Phe Thr His Arg Ser Phe Val Ala Pro Thr Ser Thr Leu Gly
 1025 1030 1035

Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser Leu
 1040 1045 1050

Pro Ser Pro Thr Thr Gly Val Pro Leu Leu Ile Pro Phe Thr Leu
 1055 1060 1065

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His
 1070 1075 1080

Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu Gln Gly
 1085 1090 1095

Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Ser Leu Tyr
 1100 1105 1110

Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala
 1115 1120 1125

Ala Thr Arg Val Asp Ala Val Cys Thr His Arg Pro Asp Pro Lys
 1130 1135 1140

Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln
 1145 1150 1155

Leu Thr 1160	His Gly Ile Ile Glu 1165	Leu Gly Pro Tyr Thr 1170	Leu Asp Arg
His Ser 1175	Phe Tyr Val Asn Gly 1180	Phe Thr His Gln Ser 1185	Ser Met Thr
Thr Thr 1190	Arg Thr Pro Asp Thr 1195	Ser Thr Met His Leu 1200	Ala Thr Ser
Arg Thr 1205	Pro Ala Ser Leu Ser 1210	Gly Pro Thr Thr Ala 1215	Ser Pro Leu
Leu Val 1220	Leu Phe Thr Ile Asn 1225	Phe Thr Ile Thr Asn 1230	Gln Arg Tyr
Glu Glu 1235	Asn Met His His Pro 1240	Gly Ser Arg Lys Phe 1245	Asn Thr Thr
Glu Arg 1250	Val Leu Gln Gly Leu 1255	Leu Arg Pro Val Phe 1260	Lys Asn Thr
Ser Val 1265	Gly Pro Leu Tyr Ser 1270	Gly Cys Arg Leu Thr 1275	Leu Leu Arg
Pro Lys 1280	Lys Asp Gly Ala Ala 1285	Thr Lys Val Asp Ala 1290	Ile Cys Thr
Tyr Arg 1295	Pro Asp Pro Lys Ser 1300	Pro Gly Leu Asp Arg 1305	Glu Gln Leu
Tyr Trp 1310	Glu Leu Ser Gln Leu 1315	Thr His Ser Ile Thr 1320	Glu Leu Gly
Pro Tyr 1325	Thr Gln Asp Arg Asp 1330	Ser Leu Tyr Val Asn 1335	Gly Phe Thr
His Arg 1340	Ser Ser Val Pro Thr 1345	Thr Ser Ile Pro Gly 1350	Thr Ser Ala
Val His 1355	Leu Glu Thr Ser Gly 1360	Thr Pro Ala Ser Leu 1365	Pro

<210> 48

<211> 1148

<212> PRT

<213> Homo sapiens

<400> 48

Met Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys
1 5 10 15

Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val
20 25 30

Asp Ala Val Cys Thr His Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp
35 40 45

Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr His Gly Ile Ile
50 55 60

Glu Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Phe Tyr Val Asn Gly
65 70 75 80

Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr Pro Asp Thr Ser
85 90 95

Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser Leu Ser Gly Pro
100 105 110

Thr Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn Phe Thr Ile
115 120 125

Thr Asn Gln Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys
130 135 140

Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Val Phe
145 150 155 160

Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu
 165 170 175

Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys
 180 185 190

Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu
 195 200 205

Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro
 210 215 220

Tyr Thr Gln Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg
 225 230 235 240

Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu
 245 250 255

Glu Thr Ser Gly Thr Pro Ala Ser Leu Pro Gly Pro Ser Ala Ala Ser
 260 265 270

Pro Leu Leu Val Leu Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Arg
 275 280 285

Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr
 290 295 300

Glu Arg Val Leu Gln Gly Leu Leu Arg Ser Leu Phe Lys Ser Thr Ser
 305 310 315 320

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 325 330 335

Lys Asp Gly Thr Ala Thr Gly Val Asp Ala Ile Cys Thr His His Pro
 340 345 350

Asp Pro Lys Ser Pro Arg Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 355 360 365

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly His Tyr Ala Leu Asp
 370 375 380

Asn Asp Ser Leu Phe Val Asn Gly Phe Thr His Arg Ser Ser Val Ser
 385 390 395 400

Thr Thr Ser Thr Pro Gly Thr Pro Thr Val Tyr Leu Gly Ala Ser Lys
 405 410 415

Thr Pro Ala Ser Ile Phe Gly Pro Ser Ala Ala Ser His Leu Leu Ile
 420 425 430

Leu Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn
 435 440 445

Met Trp Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln
 450 455 460

Gly Leu Leu Arg Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr
 465 470 475 480

Ser Gly Ser Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Glu Ala
 485 490 495

Thr Gly Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro Thr Gly Pro
 500 505 510

Gly Leu Asp Arg Glu Gln Leu Tyr Leu Glu Leu Ser Gln Leu Thr His
 515 520 525

Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr
 530 535 540

Val Asn Gly Phe Thr His Arg Ser Ser Val Pro Thr Thr Ser Thr Gly
 545 550 555 560

Val Val Ser Glu Glu Pro Phe Thr Leu Asn Phe Thr Ile Asn Asn Leu
 565 570 575

Arg Tyr Met Ala Asp Met Gly Gln Pro Gly Ser Leu Lys Phe Asn Ile
 580 585 590

Thr Asp Asn Val Met Lys His Leu Leu Ser Pro Leu Phe Gln Arg Ser
 595 600 605

Ser Leu Gly Ala Arg Tyr Thr Gly Cys Arg Val Ile Ala Leu Arg Ser
 610 615 620

Val Lys Asn Gly Ala Glu Thr Arg Val Asp Leu Leu Cys Thr Tyr Leu
 625 630 635 640

Gln Pro Leu Ser Gly Pro Gly Leu Pro Ile Lys Gln Val Phe His Glu
 645 650 655

Leu Ser Gln Gln Thr His Gly Ile Thr Arg Leu Gly Pro Tyr Ser Leu
 660 665 670

Asp Lys Asp Ser Leu Tyr Leu Asn Gly Tyr Asn Glu Pro Gly Leu Asp
 675 680 685

Glu Pro Pro Thr Thr Pro Lys Pro Ala Thr Thr Phe Leu Pro Pro Leu
 690 695 700

Ser Glu Ala Thr Thr Ala Met Gly Tyr His Leu Lys Thr Leu Thr Leu
 705 710 715 720

Asn Phe Thr Ile Ser Asn Leu Gln Tyr Ser Pro Asp Met Gly Lys Gly
 725 730 735

Ser Ala Thr Phe Asn Ser Thr Glu Gly Val Leu Gln His Leu Leu Arg
 740 745 750

Pro Leu Phe Gln Lys Ser Ser Met Gly Pro Phe Tyr Leu Gly Cys Gln
 755 760 765

Leu Ile Ser Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp
 770 775 780

Thr Thr Cys Thr Tyr His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile
 785 790 795 800

Gln Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln
 805 810 815

Leu Gly Phe Tyr Val Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly Tyr
 820 825 830

Ala Pro Gln Asn Leu Ser Ile Arg Gly Glu Tyr Gln Ile Asn Phe His
 835 840 845

Ile Val Asn Trp Asn Leu Ser Asn Pro Asp Pro Thr Ser Ser Glu Tyr
 850 855 860

Ile Thr Leu Leu Arg Asp Ile Gln Asp Lys Val Thr Thr Leu Tyr Lys
 865 870 875 880

Gly Ser Gln Leu His Asp Thr Phe Arg Phe Cys Leu Val Thr Asn Leu
 885 890 895

Thr Met Asp Ser Val Leu Val Thr Val Lys Ala Leu Phe Ser Ser Asn
 900 905 910

Leu Asp Pro Ser Leu Val Glu Gln Val Phe Leu Asp Lys Thr Leu Asn
 915 920 925

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Gly Val Leu Val Thr Thr Arg Arg Arg Lys Lys Glu Gly Glu Tyr
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Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser
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Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu
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Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu Gln Gly Leu Leu
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Asn Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys
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Glu Thr Ser Gly Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly
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Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
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Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
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Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
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Arg Gly Ser Leu Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro
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Ile Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu
725 730 735

Thr Pro Ser Ser Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile
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Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
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Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Arg Val Leu
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Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser Leu Glu Tyr Leu
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Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu Lys Asp Ser Ser
805 810 815

Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro Glu Asp
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Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Asn Leu Thr
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Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
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1505						1510					1515			
Ala	Ser	Ile	Phe	Gly	Pro	Ser	Ala	Ala	Ser	His	Leu	Leu	Ile	Leu
1520						1525					1530			
Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Arg	Tyr	Glu	Glu	Asn
1535						1540					1545			
Met	Trp	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu
1550						1555					1560			
Gln	Gly	Leu	Leu	Arg	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro
1565						1570					1575			
Leu	Tyr	Ser	Gly	Ser	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asp
1580						1585					1590			
Gly	Glu	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Pro	Asp
1595						1600					1605			
Pro	Thr	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Leu	Glu	Leu
1610						1615					1620			

Ser	Gln	Leu	Thr	His	Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu
1625						1630					1635			
Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser
1640						1645					1650			
Val	Pro	Thr	Thr	Ser	Thr	Gly	Val	Val	Ser	Glu	Glu	Pro	Phe	Thr
1655						1660					1665			
Leu	Asn	Phe	Thr	Ile	Asn	Asn	Leu	Arg	Tyr	Met	Ala	Asp	Met	Gly
1670						1675					1680			
Gln	Pro	Gly	Ser	Leu	Lys	Phe	Asn	Ile	Thr	Asp	Asn	Val	Met	Lys
1685						1690					1695			
His	Leu	Leu	Ser	Pro	Leu	Phe	Gln	Arg	Ser	Ser	Leu	Gly	Ala	Arg
1700						1705					1710			
Tyr	Thr	Gly	Cys	Arg	Val	Ile	Ala	Leu	Arg	Ser	Val	Lys	Asn	Gly
1715						1720					1725			
Ala	Glu	Thr	Arg	Val	Asp	Leu	Leu	Cys	Thr	Tyr	Leu	Gln	Pro	Leu
1730						1735					1740			
Ser	Gly	Pro	Gly	Leu	Pro	Ile	Lys	Gln	Val	Phe	His	Glu	Leu	Ser
1745						1750					1755			
Gln	Gln	Thr	His	Gly	Ile	Thr	Arg	Leu	Gly	Pro	Tyr	Ser	Leu	Asp
1760						1765					1770			
Lys	Asp	Ser	Leu	Tyr	Leu	Asn	Gly	Tyr	Asn	Glu	Pro	Gly	Leu	Asp
1775						1780					1785			
Glu	Pro	Pro	Thr	Thr	Pro	Lys	Pro	Ala	Thr	Thr	Phe	Leu	Pro	Pro
1790						1795					1800			
Leu	Ser	Glu	Ala	Thr	Thr	Ala	Met	Gly	Tyr	His	Leu	Lys	Thr	Leu
1805						1810					1815			

Thr	Leu	Asn	Phe	Thr	Ile	Ser	Asn	Leu	Gln	Tyr	Ser	Pro	Asp	Met
1820						1825					1830			
Gly	Lys	Gly	Ser	Ala	Thr	Phe	Asn	Ser	Thr	Glu	Gly	Val	Leu	Gln
1835						1840					1845			
His	Leu	Leu	Arg	Pro	Leu	Phe	Gln	Lys	Ser	Ser	Met	Gly	Pro	Phe
1850						1855					1860			
Tyr	Leu	Gly	Cys	Gln	Leu	Ile	Ser	Leu	Arg	Pro	Glu	Lys	Asp	Gly
1865						1870					1875			
Ala	Ala	Thr	Gly	Val	Asp	Thr	Thr	Cys	Thr	Tyr	His	Pro	Asp	Pro
1880						1885					1890			
Val	Gly	Pro	Gly	Leu	Asp	Ile	Gln	Gln	Leu	Tyr	Trp	Glu	Leu	Ser
1895						1900					1905			
Gln	Leu	Thr	His	Gly	Val	Thr	Gln	Leu	Gly	Phe	Tyr	Val	Leu	Asp
1910						1915					1920			
Arg	Asp	Ser	Leu	Phe	Ile	Asn	Gly	Tyr	Ala	Pro	Gln	Asn	Leu	Ser
1925						1930					1935			
Ile	Arg	Gly	Glu	Tyr	Gln	Ile	Asn	Phe	His	Ile	Val	Asn	Trp	Asn
1940						1945					1950			
Leu	Ser	Asn	Pro	Asp	Pro	Thr	Ser	Ser	Glu	Tyr	Ile	Thr	Leu	Leu
1955						1960					1965			
Arg	Asp	Ile	Gln	Asp	Lys	Val	Thr	Thr	Leu	Tyr	Lys	Gly	Ser	Gln
1970						1975					1980			
Leu	His	Asp	Thr	Phe	Arg	Phe	Cys	Leu	Val	Thr	Asn	Leu	Thr	Met
1985						1990					1995			
Asp	Ser	Val	Leu	Val	Thr	Val	Lys	Ala	Leu	Phe	Ser	Ser	Asn	Leu
2000						2005					2010			
Asp	Pro	Ser	Leu	Val	Glu	Gln	Val	Phe	Leu	Asp	Lys	Thr	Leu	Asn
2015						2020					2025			

Ala Ser	Phe His Trp Leu Gly	Ser Thr Tyr Gln Leu	Val Asp Ile
2030	2035	2040	
His Val	Thr Glu Met Glu Ser	Ser Val Tyr Gln Pro	Thr Ser Ser
2045	2050	2055	
Ser Ser	Thr Gln His Phe Tyr	Leu Asn Phe Thr Ile	Thr Asn Leu
2060	2065	2070	
Pro Tyr	Ser Gln Asp Lys Ala	Gln Pro Gly Thr Thr	Asn Tyr Gln
2075	2080	2085	
Arg Asn	Lys Arg Asn Ile Glu	Asp Ala Leu Asn Gln	Leu Phe Arg
2090	2095	2100	
Asn Ser	Ser Ile Lys Ser Tyr	Phe Ser Asp Cys Gln	Val Ser Thr
2105	2110	2115	
Phe Arg	Ser Val Pro Asn Arg	His His Thr Gly Val	Asp Ser Leu
2120	2125	2130	
Cys Asn	Phe Ser Pro Leu Ala	Arg Arg Val Asp Arg	Val Ala Ile
2135	2140	2145	
Tyr Glu	Glu Phe Leu Arg Met	Thr Arg Asn Gly Thr	Gln Leu Gln
2150	2155	2160	
Asn Phe	Thr Leu Asp Arg Ser	Ser Val Leu Val Asp	Gly Tyr Ser
2165	2170	2175	
Pro Asn	Arg Asn Glu Pro Leu	Thr Gly Asn Ser Asp	Leu Pro Phe
2180	2185	2190	
Trp Ala	Val Ile Leu Ile Gly	Leu Ala Gly Leu Leu	Gly Leu Ile
2195	2200	2205	
Thr Cys	Leu Ile Cys Gly Val	Leu Val Thr Thr Arg	Arg Arg Lys
2210	2215	2220	

Lys Glu Gly Glu Tyr Asn Val Gln Gln Gln Cys Pro Gly Tyr Tyr
 2225 2230 2235

Gln Ser His Leu Asp Leu Glu Asp Leu Gln
 2240 2245

<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 51

cagcagagac cagcacgagt actc

24

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 52

tccactgccca tggctgagct

20

<210> 53

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 53

ccagcacagc tcttcccagg ac

22

<210> 54

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 54

ggaatggctg agctgacgtc tg

22

<210> 55

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 55

cttcccagga caacctcaag g

21

<210> 56

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 56

gcaggatgag tgagccacgt g

21

<210> 57

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 57

gtcagatctg gtgacctcac tg

22

<210> 58

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 58

gaggcactgg aaagcccaga g

21

<210> 59

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 59

ctgatggcat tatggaacac atcac

25

<210> 60

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 60

cccagaacga gagaccagtg ag

22

<210> 61

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 61

gctgatggcg atgaatgaac actg

24

<210> 62

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 62

cccagaacga gagaccagtg ag

22

<210> 63

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 63

cgcggatccg aacactgcgt ttgctggctt tgatg

35

<210> 64

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 64

cctctgtgtg ctgcttcatt ggg

23

<210> 65

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 65

accgatcca tgggccacac agagcctggc cc

32

<210> 66

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Primer

<400> 66

tgtaagctta ggcagggagg atggagtcc

29

<210> 67

<211> 507

<212> DNA

<213> Homo sapien

<400> 67

atgagaggat cgcacacca tcaccatcac ggatccatgg gccacacaga gcctggccct 60

ctcctgatac cattcacttt caactttacc atcaccaacc tgcattatga ggaaaacatg 120

caacaccctg gttccaggaa gttcaacacc acggagaggg ttctgcaggg tctgctcaag 180

cccttggttca agaacaccag tggtggccct ctgtactctg gctgcagact gaccttgctc 240

agacctgaga agcatgaggc agccactgga gtggacacca tctgtaccca ccgcgttgat 300

cccatcggac ctggactgga cagagagcgg ctatactggg agctgagcca gctgaccaac 360

agcatcacag agctgggacc ctacaccctg gacagggaca gtctctatgt caatggcttc 420

aacctcggga gctctgtgcc aaccaccagc actcctggga cctccacagt gcacctggca 480

acctctggga ctccatcctc cctgcct 507

<210> 68

<211> 169

<212> PRT

<213> Homo sapiens

<400> 68

Met Arg Gly Ser His His His His His His Gly Ser Met Gly His Thr
1 5 10 15

Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr
20 25 30

Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
35 40 45

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys
50 55 60

Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
65 70 75 80

Arg Pro Glu Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr
85 90 95

His Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr
100 105 110

Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr
115 120 125

Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Arg Ser
130 135 140

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala
145 150 155 160

Thr Ser Gly Thr Pro Ser Ser Leu Pro
165

<210> 69

<211> 909

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(909)

<223> Any "X" = any amino acid

<400> 69

Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser
1 5 10 15

Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys
20 25 30

Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro
35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
85 90 95

Thr Thr Ser Ile Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly
100 105 110

Thr	Pro	Val	Ser	Lys	Pro	Gly	Pro	Ser	Ala	Ala	Ser	Pro	Leu	Leu	Ile	115	120	125
Pro	Phe	Thr	Ile	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Arg	Tyr	Glu	Glu	Asn	130	135	140
Met	Gly	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Ile	Met	Glu	Arg	Val	Leu	145	150	155
Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	165	170	175
Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Lys	Lys	Asp	Gly	Ala	180	185	190
Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	195	200	205
Pro	Gly	Leu	Asn	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Lys	Leu	Thr	210	215	220
Asn	Asp	Ile	Glu	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	225	230	235
Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Ser	Ser	Val	Ser	Thr	Thr	Ser	Thr	245	250	255
Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Arg	Thr	Ser	Gly	Thr	Pro	Ser	Ser	260	265	270
Leu	Ser	Ser	Pro	Thr	Ile	Met	Ala	Ala	Gly	Pro	Leu	Leu	Ile	Pro	Phe	275	280	285
Thr	Ile	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Arg	Tyr	Glu	Glu	Asn	Met	His	290	295	300
His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Met	Glu	Arg	Val	Leu	Gln	Gly	305	310	315
Leu	Leu	Met	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr	Ser	325	330	335

Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr
 340 345 350

Arg Val Asp Ala Val Cys Thr His Arg Pro Asp Pro Lys Ser Pro Gly
 355 360 365

Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr His Gly
 370 375 380

Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val
 385 390 395 400

Asn Gly Phe Thr His Arg Ser Ser Met Pro Thr Thr Ser Thr Pro Gly
 405 410 415

Thr Ser Thr Val Asp Val Gly Thr Ser Gly Thr Pro Ser Ser Ser Pro
 420 425 430

Ser Pro Thr Thr Ala Gly Pro Leu Leu Met Pro Phe Thr Leu Asn Phe
 435 440 445

Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser
 450 455 460

Arg Lys Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu Lys Pro
 465 470 475 480

Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu
 485 490 495

Thr Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr Gly Val Asp Ala
 500 505 510

Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu
 515 520 525

Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser Val Thr Glu Leu
 530 535 540

Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr
 545 550 555 560

His Arg Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Ser Ala Val
 565 570 575

His Leu Glu Thr Ser Gly Thr Pro Ala Ser Leu Pro Gly His Thr Ala
 580 585 590

Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn
 595 600 605

Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe Asn
 610 615 620

Thr Met Glu Arg Val Leu Gln Gly Cys Leu Val Pro Cys Ser Arg Asn
 625 630 635 640

Thr Asn Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg
 645 650 655

Xaa Glu Lys Xaa Xaa Ala Ala Thr Xaa Val Asp Xaa Xaa Cys Xaa Xaa
 660 665 670

Xaa Xaa Asp Pro Xaa Xaa Pro Gly Leu Asp Arg Glu Xaa Leu Tyr Trp
 675 680 685

Glu Leu Ser Xaa Leu Thr Xaa Xaa Ile Xaa Glu Leu Gly Pro Tyr Thr
 690 695 700

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser
 705 710 715 720

Val Ala Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr
 725 730 735

Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Val Pro Leu Leu
 740 745 750

Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Gly Glu
 755 760 765

Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val
 770 775 780

Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn Ser Ser Val Gly Pro
 785 790 795 800

Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu Lys Asp Gly
 805 810 815

Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His His Leu Asn Pro Gln
 820 825 830

Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu Ser Gln Val
 835 840 845

Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser
 850 855 860

Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu Thr Thr Ser
 865 870 875 880

Thr Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser
 885 890 895

Pro Val Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile
 900 905

<210> 70

<211> 525

<212> PRT

<213> Homo sapiens

<400> 70

Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu
 1 5 10 15

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala
 20 25 30

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn
 35 40 45

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 50 55 60

Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu
 65 70 75 80

Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr
 85 90 95

Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser
 100 105 110

Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Val Pro Phe Thr Leu
 115 120 125

Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Ala Met Arg His Pro
 130 135 140

Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu
 145 150 155 160

Arg Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys
 165 170 175

Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val
 180 185 190

Asp Ala Ala Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp
 195 200 205

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr
 210 215 220

Glu Leu Gly Pro Tyr Thr Leu Asp Arg Val Ser Leu Tyr Val Asn Gly
 225 230 235 240

Phe Asn Pro Arg Ser Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser
245 250 255

Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser Leu Pro Gly His
260 265 270

Thr Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile
275 280 285

Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys
290 295 300

Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Leu Phe
305 310 315 320

Lys Asn Thr Ser Ile Gly Pro Leu Tyr Ser Ser Cys Arg Leu Thr Leu
325 330 335

Leu Arg Pro Glu Lys Asp Lys Ala Ala Thr Arg Val Asp Ala Ile Cys
340 345 350

Thr His His Pro Asp Pro Gln Ser Pro Gly Leu Asn Arg Glu Gln Leu
355 360 365

Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro
370 375 380

Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asp Gly Phe Thr His Trp
385 390 395 400

Ser Pro Ile Pro Thr Thr Ser Thr Pro Gly Thr Ser Ile Val Asn Leu
405 410 415

Gly Thr Ser Gly Ile Pro Pro Ser Leu Pro Glu Thr Thr Ala Thr Gly
420 425 430

Pro Leu Leu Ile Pro Phe Thr Pro Asn Phe Thr Ile Thr Asn Leu Gln
435 440 445

Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met
 450 455 460

Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser
 465 470 475 480

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu
 485 490 495

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
 500 505 510

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr
 515 520 525

<210> 71

<211> 594

<212> PRT

<213> Homo sapiens

<400> 71

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Asp Gly Val Ala Thr Arg Val Asp Ala Ile Cys Thr His Arg Pro
 35 40 45

Asp Pro Lys Ile Pro Gly Leu Asp Arg Gln Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Phe Thr Val Gln Pro Glu Thr Ser Glu
 100 105 110

Thr Pro Ser Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met His Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Met Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Gln Glu Ala
 180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Ser Glu
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Ser Gly Val Leu Cys Pro Pro Pro Ser
 245 250 255

Ile Leu Gly Ile Phe Thr Val Gln Pro Glu Thr Phe Glu Thr Pro Ser
 260 265 270

Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu Pro Phe Thr
 275 280 285

Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp Met His Arg
 290 295 300

Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 305 310 315 320

Leu Thr Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
 325 330 335

Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Gln Glu Ala Ala Thr Gly
 340 345 350

Val Asp Thr Ile Cys Thr His Arg Val Asp Pro Ile Gly Pro Gly Leu
 355 360 365

Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile
 370 375 380

Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn
 385 390 395 400

Gly Phe Asn Pro Trp Ser Ser Val Pro Thr Thr Ser Thr Pro Gly Thr
 405 410 415

Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser Leu Pro Gly
 420 425 430

His Thr Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr
 435 440 445

Ile Thr Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg
 450 455 460

Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu
 465 470 475 480

Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr
 485 490 495

Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile
 500 505 510

Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln
 515 520 525

Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly
 530 535 540

Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His
 545 550 555 560

Trp Ile Pro Val Pro Thr Ser Ser Thr Pro Gly Thr Ser Thr Val Asp
 565 570 575

Leu Gly Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Gly
 580 585 590

Pro Leu

<210> 72

<211> 424

<212> PRT

<213> Homo sapiens

<400> 72

Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg
 1 5 10 15

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Tyr Thr His
 20 25 30

Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp
 35 40 45

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
 50 55 60

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Thr Ser
 65 70 75 80

Ala Pro Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr
 85 90 95

Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Ser Ala Gly Pro Leu
 100 105 110

Leu Ile Pro Phe Thr Ile Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu
 115 120 125

Glu Asn Met His His Pro Gly Ser Arg Lys Phe Asn Thr Met Glu Arg
 130 135 140

Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly
 145 150 155 160

Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp
 165 170 175

Gly Val Ala Thr Arg Val Asp Ala Ile Cys Thr His Arg Pro Asp Pro
 180 185 190

Lys Ile Pro Gly Leu Asp Arg Gln Gln Leu Tyr Trp Glu Leu Ser Gln
 195 200 205

Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp
 210 215 220

Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro Thr Thr
 225 230 235 240

Ser Thr Pro Gly Thr Phe Thr Val Gln Pro Glu Thr Ser Glu Thr Pro
 245 250 255

Ser Ser Leu Pro Gly Pro Thr Ala Thr Gly Pro Val Leu Leu Pro Phe
 260 265 270

Thr Leu Asn Phe Thr Ile Ile Asn Leu Gln Tyr Glu Glu Asp Met His
 275 280 285

Arg Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly
 290 295 300

Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser
305 310 315 320

Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr
325 330 335

Gly Val Asp Ala Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly Pro Gly
340 345 350

Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Ser
355 360 365

Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val
370 375 380

Asn Gly Phe Asn Pro Trp Ser Ser Val Pro Thr Thr Ser Thr Pro Gly
385 390 395 400

Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser Leu Pro
405 410 415

Gly His Thr Ala Pro Val Pro Leu
420

<210> 73

<211> 286

<212> PRT

<213> Homo sapiens

<400> 73

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro
 85 90 95

Thr Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly
 100 105 110

Thr Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Val
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala
 180 185 190

Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 210 215 220

Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser
 260 265 270

Leu Pro Arg Pro Ile Val Pro Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 74

<211> 286

<212> PRT

<213> Homo sapiens

<400> 74

Glu Arg Val Leu Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys
 20 25 30

Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro
 35 40 45

Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr Gln Arg Ser Ser Val Pro
 85 90 95

Thr Thr Ser Ile Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly
 100 105 110

Thr Pro Val Ser Lys Pro Gly Pro Ser Ala Ala Ser Pro Leu Leu Val
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
 130 135 140

Met His Arg Pro Gly Ser Arg Lys Phe Asn Ala Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr
 245 250 255

Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser
 260 265 270

Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 75

<211> 286

<212> PRT

<213> Homo sapiens

<400> 75

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Leu
 35 40 45

Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu Leu Asp
 65 70 75 80

Arg Gly Ser Leu Tyr Val Asn Gly Phe Ser Arg Gln Ser Ser Met Thr
 85 90 95

Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg
 100 105 110

Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Asn Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Lys Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 210 215 220

His Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala Pro Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Pro Ser Pro Thr Thr Ala Val Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 76

<211> 286

<212> PRT

<213> Homo sapiens

<400> 76

Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg Asn Ser Ser
 1 5 10 15

Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His Arg Pro
 35 40 45

Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu
 85 90 95

Thr Thr Ser Thr Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
 100 105 110

Thr Pro Ser Pro Val Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn
 130 135 140

Met Gly His Pro Gly Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Met Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala
 180 185 190

Ala Thr Arg Val Asp Ala Val Cys Thr Gln Arg Pro Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr
 210 215 220

His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Leu
 225 230 235 240

Tyr Val Asn Gly Leu Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr
 245 250 255

Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser
 260 265 270

Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 77

<211> 288

<212> PRT

<213> Homo sapiens

<400> 77

Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Ser Lys Asn Ser Ser
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu
 20 25 30

Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro
 35 40 45

Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly
 100 105 110

Thr Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Val Asn Phe Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn
 130 135 140

Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala
 180 185 190

Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser
 195 200 205

Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr
 210 215 220

Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 225 230 235 240

Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser Thr Thr Ser Thr
 245 250 255

Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser
 260 265 270

Leu Ser Ser Pro Thr Ile Met Ala Ala Gly Pro Leu Leu Ile Pro Phe
 275 280 285

<210> 78

<211> 597

<212> PRT

<213> Homo sapiens

<400> 78

Glu Arg Val Leu His Gly Leu Leu Thr Pro Leu Phe Lys Asn Thr Arg
 1 5 10 15

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu
 20 25 30

Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His Arg Val
 35 40 45

Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu
 50 55 60

Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp
 65 70 75 80

Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Trp Ser Ser Val Pro
 85 90 95

Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly
 100 105 110

Thr Pro Ser Ser Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile
 115 120 125

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn
 130 135 140

Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 145 150 155 160

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
 165 170 175

Tyr Ser Gly Cys Arg Leu Thr Leu Phe Lys Pro Glu Lys His Glu Ala
 180 185 190

Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu Asp Pro Thr Gly
 195 200 205

Pro Gly Leu Asp Arg Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn
 210 215 220

Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr
 225 230 235 240

Val Asn Gly Phe Thr His Arg Ser Ser Val Pro Thr Thr Ser Ile Pro
 245 250 255

Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly Thr Pro Ala Ser Leu
 260 265 270

Pro Gly His Thr Ala Pro Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn
 275 280 285

Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr Gly
 290 295 300

Ser Arg Lys Phe Asn Thr Met Glu Arg Val Leu Gln Gly Leu Leu Lys
 305 310 315 320

Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
 325 330 335

Leu Thr Leu Leu Arg Pro Glu Lys Arg Gly Ala Ala Thr Gly Val Asp
 340 345 350

Thr Ile Cys Thr His Arg Leu Asp Pro Leu Asn Pro Gly Leu Asp Arg
 355 360 365

Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Arg Gly Ile Ile Glu
 370 375 380

Leu Gly Pro Tyr Leu Leu Asp Arg Gly Ser Leu Tyr Val Asn Gly Phe
 385 390 395 400

Thr His Arg Asn Phe Val Pro Ile Thr Ser Thr Pro Gly Thr Ser Thr
 405 410 415

Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser Leu Pro Arg Pro Ile
 420 425 430

Val Pro Gly Pro Leu Leu Ile Pro Phe Thr Ile Asn Phe Thr Ile Thr
 435 440 445

Asn Leu Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys Phe
 450 455 460

Asn Ile Met Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys
 465 470 475 480

Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu
 485 490 495

Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr
 500 505 510

His His Leu Asn Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr
 515 520 525

Trp Gln Leu Ser Gln Met Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr
 530 535 540

Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser
 545 550 555 560

Ser Gly Leu Thr Thr Ser Thr Pro Trp Thr Ser Thr Val Asp Leu Gly
 565 570 575

Thr Ser Gly Thr Pro Ser Pro Val Pro Ser Pro Thr Thr Ala Gly Pro
 580 585 590

Leu Leu Ile Pro Phe
 595

<210> 79

<211> 420

<212> PRT

<213> Homo sapiens

<400> 79

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys
 1 5 10 15

Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn
 20 25 30

Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser
 35 40 45

Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg
 50 55 60

Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr
 65 70 75 80

Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr
 85 90 95

Pro Ser Ser Phe Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro
 100 105 110

Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met
 115 120 125

Gly His Pro Gly Ser Arg Lys Phe Asn Ile Thr Glu Ser Val Leu Gln
 130 135 140

Gly Leu Leu Thr Pro Leu Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr
 145 150 155 160

Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu Lys Asp Gly Ala Ala
 165 170 175

Thr Gly Val Asp Ala Ile Cys Thr His His Leu Asn Pro Gln Ser Pro
 180 185 190

Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu Ser Gln Met Thr Asn
 195 200 205

Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr
 210 215 220

Val Asn Gly Phe Thr His Arg Ser Leu Gly Leu Thr Thr Ser Thr Pro
 225 230 235 240

Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Pro Val
 245 250 255

Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn
 260 265 270

Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro Gly
 275 280 285

Ser Arg Lys Phe Asn Ile Met Glu Arg Val Leu Gln Gly Leu Leu Arg
 290 295 300

Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
 305 310 315 320

Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp
 325 330 335

Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg
 340 345 350

Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu
 355 360 365

Leu Gly Pro Tyr Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe
 370 375 380

Thr Gln Arg Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Pro Thr
 385 390 395 400

Val Asp Leu Gly Thr Ser Gly Thr Pro Val Ser Lys Pro Gly Pro Ser
 405 410 415

Ala Ala Ser Pro
 420

<210> 80

<211> 479

<212> PRT

<213> Homo sapiens

<400> 80

Gln Leu Tyr Trp Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu
 1 5 10 15

Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr
 20 25 30

His Gln Ser Ser Val Ser Thr Thr Ser Thr Pro Gly Thr Ser Thr Val
35 40 45

Asp Leu Arg Thr Ser Gly Thr Pro Ser Ser Leu Ser Ser Pro Thr Ile
50 55 60

Met Ala Ala Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile
65 70 75 80

Thr Asn Leu Gln Tyr Glu Glu Asn Met Gly His Pro Gly Ser Arg Lys
85 90 95

Phe Asn Ile Met Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe
100 105 110

Lys Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu
115 120 125

Leu Arg Pro Glu Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys
130 135 140

Ser His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu
145 150 155 160

Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro
165 170 175

Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg
180 185 190

Ser Ser Val Ala Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu
195 200 205

Gly Thr Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Val
210 215 220

Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Lys
225 230 235 240

Tyr Glu Glu Asp Met His Cys Pro Gly Ser Arg Lys Phe Asn Thr Thr
245 250 255

Glu Arg Val Leu Gln Ser Leu Phe Gly Pro Met Phe Lys Asn Thr Ser
260 265 270

Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Ser	Glu
		275					280					285			

Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu
290 295 300

Asp Pro Lys Ser Leu Gly Val Asp Arg Glu Gln Leu Tyr Trp Glu Leu
305 310 315 320

Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp
325 330 335

Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Thr Ser Ala Pro
340 345 350

Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
355 360 365

Thr Pro Ser Ser Leu Pro Ser Pro Thr Ser Ala Gly Pro Leu Leu Val
370 375 380

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
385 390 395 400

Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu Ser Val Leu
405 410 415

Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu
420 425 430

Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala
435 440 445

Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser
450 455 460

Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser Lys Leu
 465 470 475

<210> 81

<211> 5465

<212> DNA

<213> Homo sapiens

<400> 81
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 acagaggtag cataagacca gtcaaaggcc ctgagacatc cacttcgcct gccagtccta 180
 aaggactaca cacaggaggg acaaaaagaa tggagaccac caccacagct ttgaagacca 240
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 tagacactgt atcttccaca gccaccagtc atggggcaga cgtcagctca gccattccaa 720
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 catggctcac tcactctgca gagaccagct caactattcc cagaacaatc cccaattttt 900
 ctcatcatga atcagatgcc acaccttcaa tagccaccag tcctggggca gaaaccagtt 960
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gttcagctgt tccaactcca actgtttcaa ctgaggtacc aggagtagtg acccctttgg	1440
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aaccagagac cacaccttca atggccacca gtcatgggga agaagccagt tctgctattc	1560
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caccttcaat ggccaccagt catgggacag aagctggctc agctgttcca actgttttac	1740
ctgaggtacc aggaatgggtg acctctctgg ttgctagttc tagggcagta accagtacaa	1800
ctcttccaac tctgactctt tctcctgggtg aaccagagac cacaccttca atggccacca	1860
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tttctcctgg tgaactagaa accacacctt caatggccac cagtcatggg gcagaagcca	2040
gctcagctgt tccaactcca actgtttcac ctggggatc aggagtgggtg acccctctgg	2100
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taaccagtac aactattcca actctgacta tttcttctga tgaaccagag accacaactt	2340
cattggtcac ccattctgag gcaaagatga tttcagccat tccaacttta gctgtctccc	2400
ctactgtaca agggctgggtg acttcactgg tcactagttc tgggtcagag accagtgcgt	2460
tttcaaactc aactgttgcc tcaagtcaac cagagaccat agactcatgg gtcgctcatc	2520
ctgggacaga agcaagttct gttgttccaa ctttgactgt ctccactggg gagccgttta	2580
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caagggtttc ccacagtga ttagacacta tgccttctac agtcaccagt cctgaggcag	2700
aatccagctc agccatttca actactatct cacctgggtat accaggtgtg ctgacatcac	2760

tggtcactag	ctctgggaga	gacatcagtg	caactttttcc	aacagtgccct	gagtccccac	2820
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ccaggacaac	ccctaattat	tctcatagtg	aaccagacac	cacaccatca	atagccacca	2940
gtcctggggc	agaagccact	tcagattttc	caacaataac	tgtctcacct	gatgtaccag	3000
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tgtcagatct	ggtgacctca	ctggtcctta	gttctgggac	agacaccagt	acaaccttcc	3480
caacattgag	tgagacccca	tatgaaccag	agactacagt	cacgtggctc	actcatcctg	3540
cagaaaccag	cacaacggtt	tctgggacaa	ttcccaactt	ttcccatagg	ggatcagaca	3600
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<210> 82

<211> 1821

<212> PRT

<213> Homo sapiens

<400> 82

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Lys Ile Pro Asn Glu Ala Ala His Arg Gly Thr Ile Arg Pro Val Lys
35 40 45

Gly Pro Gln Thr Ser Thr Ser Pro Ala Ser Pro Lys Gly Leu His Thr
50 55 60

Gly Gly Thr Lys Arg Met Glu Thr Thr Thr Thr Ala Leu Lys Thr Thr
65 70 75 80

Thr Thr Ala Leu Lys Thr Thr Ser Arg Ala Thr Leu Thr Thr Ser Val
85 90 95

Tyr Thr Pro Thr Leu Gly Thr Leu Thr Pro Leu Asn Ala Ser Arg Gln
100 105 110

Met Ala Ser Thr Ile Leu Thr Glu Met Met Ile Thr Thr Pro Tyr Val
115 120 125

Phe Pro Asp Val Pro Glu Thr Thr Ser Ser Leu Ala Thr Ser Leu Gly
130 135 140

Ala Glu Thr Ser Thr Ala Leu Pro Arg Thr Thr Pro Ser Val Leu Asn
145 150 155 160

Arg Glu Ser Glu Thr Thr Ala Ser Leu Val Ser Arg Ser Gly Ala Glu
165 170 175

Arg Ser Pro Val Ile Gln Thr Leu Asp Val Ser Ser Ser Glu Pro Asp
180 185 190

Thr Thr Ala Ser Trp Val Ile His Pro Ala Glu Thr Ile Pro Thr Val
195 200 205

Ser Lys Thr Thr Pro Asn Phe Phe His Ser Glu Leu Asp Thr Val Ser
210 215 220

Ser Thr Ala Thr Ser His Gly Ala Asp Val Ser Ser Ala Ile Pro Thr
 225 230 235 240

Asn Ile Ser Pro Ser Glu Leu Asp Ala Leu Thr Pro Leu Val Thr Ile
 245 250 255

Ser Gly Thr Asp Thr Ser Thr Thr Phe Pro Thr Leu Thr Lys Ser Pro
 260 265 270

His Glu Thr Glu Thr Arg Thr Thr Trp Leu Thr His Pro Ala Glu Thr
 275 280 285

Ser Ser Thr Ile Pro Arg Thr Ile Pro Asn Phe Ser His His Glu Ser
 290 295 300

Asp Ala Thr Pro Ser Ile Ala Thr Ser Pro Gly Ala Glu Thr Ser Ser
 305 310 315 320

Ala Ile Pro Ile Met Thr Val Ser Pro Gly Ala Glu Asp Leu Val Thr
 325 330 335

Ser Gln Val Thr Ser Ser Gly Thr Asp Arg Asn Met Thr Ile Pro Thr
 340 345 350

Leu Thr Leu Ser Pro Gly Glu Pro Lys Thr Ile Ala Ser Leu Val Thr
 355 360 365

His Pro Glu Ala Gln Thr Ser Ser Ala Ile Pro Thr Ser Thr Ile Ser
 370 375 380

Pro Ala Val Ser Arg Leu Val Thr Ser Met Val Thr Ser Leu Ala Ala
 385 390 395 400

Lys Thr Ser Thr Thr Asn Arg Ala Leu Thr Asn Ser Pro Gly Glu Pro
 405 410 415

Ala Thr Thr Val Ser Leu Val Thr His Pro Ala Gln Thr Ser Pro Thr
 420 425 430

Val Pro Trp Thr Thr Ser Ile Phe Phe His Ser Lys Ser Asp Thr Thr
 435 440 445

Pro Ser Met Thr Thr Ser His Gly Ala Glu Ser Ser Ser Ala Val Pro
 450 455 460

Thr Pro Thr Val Ser Thr Glu Val Pro Gly Val Val Thr Pro Leu Val
 465 470 475 480

Thr Ser Ser Arg Ala Val Ile Ser Thr Thr Ile Pro Ile Leu Thr Leu
 485 490 495

Ser Pro Gly Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His Gly
 500 505 510

Glu Glu Ala Ser Ser Ala Ile Pro Thr Pro Thr Val Ser Pro Gly Val
 515 520 525

Pro Gly Val Val Thr Ser Leu Val Thr Ser Ser Arg Ala Val Thr Ser
 530 535 540

Thr Thr Ile Pro Ile Leu Thr Phe Ser Leu Gly Glu Pro Glu Thr Thr
 545 550 555 560

Pro Ser Met Ala Thr Ser His Gly Thr Glu Ala Gly Ser Ala Val Pro
 565 570 575

Thr Val Leu Pro Glu Val Pro Gly Met Val Thr Ser Leu Val Ala Ser
 580 585 590

Ser Arg Ala Val Thr Ser Thr Thr Leu Pro Thr Leu Thr Leu Ser Pro
 595 600 605

Gly Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His Gly Ala Glu
 610 615 620

Ala Ser Ser Thr Val Pro Thr Val Ser Pro Glu Val Pro Gly Val Val
 625 630 635 640

Thr Ser Leu Val Thr Ser Ser Ser Gly Val Asn Ser Thr Ser Ile Pro
 645 650 655

Thr Leu Ile Leu Ser Pro Gly Glu Leu Glu Thr Thr Pro Ser Met Ala
 660 665 670

Thr Ser His Gly Ala Glu Ala Ser Ser Ala Val Pro Thr Pro Thr Val
 675 680 685

Ser Pro Gly Val Ser Gly Val Val Thr Pro Leu Val Thr Ser Ser Arg
 690 695 700

Ala Val Thr Ser Thr Thr Ile Pro Ile Leu Thr Leu Ser Ser Ser Glu
 705 710 715 720

Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His Gly Val Glu Ala Ser
 725 730 735

Ser Ala Val Leu Thr Val Ser Pro Glu Val Pro Gly Met Val Thr Ser
 740 745 750

Leu Val Thr Ser Ser Arg Ala Val Thr Ser Thr Thr Ile Pro Thr Leu
 755 760 765

Thr Ile Ser Ser Asp Glu Pro Glu Thr Thr Thr Ser Leu Val Thr His
 770 775 780

Ser Glu Ala Lys Met Ile Ser Ala Ile Pro Thr Leu Ala Val Ser Pro
 785 790 795 800

Thr Val Gln Gly Leu Val Thr Ser Leu Val Thr Ser Ser Gly Ser Glu
 805 810 815

Thr Ser Ala Phe Ser Asn Leu Thr Val Ala Ser Ser Gln Pro Glu Thr
 820 825 830

Ile Asp Ser Trp Val Ala His Pro Gly Thr Glu Ala Ser Ser Val Val
 835 840 845

Pro Thr Leu Thr Val Ser Thr Gly Glu Pro Phe Thr Asn Ile Ser Leu
 850 855 860

Val Thr His Pro Ala Glu Ser Ser Ser Thr Leu Pro Arg Thr Thr Ser
 865 870 875 880

Arg Phe Ser His Ser Glu Leu Asp Thr Met Pro Ser Thr Val Thr Ser
885 890 895

Pro Glu Ala Glu Ser Ser Ser Ala Ile Ser Thr Thr Ile Ser Pro Gly
900 905 910

Ile Pro Gly Val Leu Thr Ser Leu Val Thr Ser Ser Gly Arg Asp Ile
915 920 925

Ser Ala Thr Phe Pro Thr Val Pro Glu Ser Pro His Glu Ser Glu Ala
930 935 940

Thr Ala Ser Trp Val Thr His Pro Ala Val Thr Ser Thr Thr Val Pro
945 950 955 960

Arg Thr Thr Pro Asn Tyr Ser His Ser Glu Pro Asp Thr Thr Pro Ser
965 970 975

Ile Ala Thr Ser Pro Gly Ala Glu Ala Thr Ser Asp Phe Pro Thr Ile
980 985 990

Thr Val Ser Pro Asp Val Pro Asp Met Val Thr Ser Gln Val Thr Ser
995 1000 1005

Ser Gly Thr Asp Thr Ser Ile Thr Ile Pro Thr Leu Thr Leu Ser
1010 1015 1020

Ser Gly Glu Pro Glu Thr Thr Thr Ser Phe Ile Thr Tyr Ser Glu
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Ala Ser Lys Met Leu Thr Ser Leu Val Ile Ser Ser Gly Thr Asp
1055 1060 1065

Ser Thr Thr Thr Phe Pro Thr Leu Thr Glu Thr Pro Tyr Glu Pro
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Thr Thr	Leu Pro	Val Ala	Ile	Thr Ser	Pro Gly	Pro	Glu Ala	Ser
1115			1120			1125		
Ser Ala	Val Ser	Thr Thr	Thr	Ile Ser	Pro Asp	Met	Ser Asp	Leu
1130			1135			1140		
Val Thr	Ser Leu	Val Pro	Ser	Ser Gly	Thr Asp	Thr	Ser Thr	Thr
1145			1150			1155		
Phe Pro	Thr Leu	Ser Glu	Thr	Pro Tyr	Glu Pro	Glu	Thr Thr	Ala
1160			1165			1170		
Thr Trp	Leu Thr	His Pro	Ala	Glu Thr	Ser Thr	Thr	Val Ser	Gly
1175			1180			1185		
Thr Ile	Pro Asn	Phe Ser	His	Arg Gly	Ser Asp	Thr	Ala Pro	Ser
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Met Val	Thr Ser	Pro Gly	Val	Asp Thr	Arg Ser	Gly	Val Pro	Thr
1205			1210			1215		
Thr Thr	Ile Pro	Pro Ser	Ile	Pro Gly	Val Val	Thr	Ser Gln	Val
1220			1225			1230		
Thr Ser	Ser Ala	Thr Asp	Thr	Ser Thr	Ala Ile	Pro	Thr Leu	Thr
1235			1240			1245		
Pro Ser	Pro Gly	Glu Pro	Glu	Thr Thr	Ala Ser	Ser	Ala Thr	His
1250			1255			1260		
Pro Gly	Thr Gln	Thr Gly	Phe	Thr Val	Pro Ile	Arg	Thr Val	Pro
1265			1270			1275		
Ser Ser	Glu Pro	Asp Thr	Met	Ala Ser	Trp Val	Thr	His Pro	Pro
1280			1285			1290		

Gln Thr	Ser Thr Pro Val	Ser	Arg Thr Thr Ser Ser	Phe Ser His
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Ser Ser	Pro Asp Ala Thr	Pro	Val Met Ala Thr Ser	Pro Arg Thr
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Glu Ala	Ser Ser Ala Val	Leu	Thr Thr Ile Ser Pro	Gly Ala Pro
1325		1330		1335
Glu Met	Val Thr Ser Gln	Ile	Thr Ser Ser Gly Ala	Ala Thr Ser
1340		1345		1350
Thr Thr	Val Pro Thr Leu	Thr	His Ser Pro Gly Met	Pro Glu Thr
1355		1360		1365
Thr Ala	Leu Leu Ser Thr	His	Pro Arg Thr Glu Thr	Ser Lys Thr
1370		1375		1380
Phe Pro	Ala Ser Thr Val	Phe	Pro Gln Val Ser Glu	Thr Thr Ala
1385		1390		1395
Ser Leu	Thr Ile Arg Pro	Gly	Ala Glu Thr Ser Thr	Ala Leu Pro
1400		1405		1410
Thr Gln	Thr Thr Ser Ser	Leu	Phe Thr Leu Leu Val	Thr Gly Thr
1415		1420		1425
Ser Arg	Val Asp Leu Ser	Pro	Thr Ala Ser Pro Gly	Val Ser Ala
1430		1435		1440
Lys Thr	Ala Pro Leu Ser	Thr	His Pro Gly Thr Glu	Thr Ser Thr
1445		1450		1455
Met Ile	Pro Thr Ser Thr	Leu	Ser Leu Gly Leu Leu	Glu Thr Thr
1460		1465		1470
Gly Leu	Leu Ala Thr Ser	Ser	Ser Ala Glu Thr Ser	Thr Ser Thr
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Leu Thr 1490	Leu Thr Val Ser Pro 1495	Ala Val Ser Gly Leu Ser Ser Ala 1500
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Glu Thr 1520	Ser Pro Ser Val Thr 1525	Ser Val Gly Pro Pro Glu Phe Ser 1530
Arg Thr 1535	Val Thr Gly Thr Thr 1540	Met Thr Leu Ile Pro Ser Glu Met 1545
Pro Thr 1550	Pro Pro Lys Thr Ser 1555	His Gly Glu Gly Val Ser Pro Thr 1560
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Thr Gly 1580	Ser Ser Pro Thr Val 1585	Ala Lys Thr Thr Thr Thr Phe Asn 1590
Thr Leu 1595	Ala Gly Ser Leu Phe 1600	Thr Pro Leu Thr Thr Pro Gly Met 1605
Ser Thr 1610	Leu Ala Ser Glu Ser 1615	Val Thr Ser Arg Thr Ser Tyr Asn 1620
His Arg 1625	Ser Trp Ile Ser Thr 1630	Thr Ser Ser Tyr Asn Arg Arg Tyr 1635
Trp Thr 1640	Pro Ala Thr Ser Thr 1645	Pro Val Thr Ser Thr Phe Ser Pro 1650
Gly Ile 1655	Ser Thr Ser Ser Ile 1660	Pro Ser Ser Thr Ala Ala Thr Val 1665
Pro Phe 1670	Met Val Pro Phe Thr 1675	Leu Asn Phe Thr Ile Thr Asn Leu 1680
Gln Tyr 1685	Glu Glu Asp Met Arg 1690	His Pro Gly Ser Arg Lys Phe Asn 1695

Ala Thr Glu Arg Glu Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg
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Asn Ser Ser Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser
1715 1720 1725

Leu Arg Pro Glu Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile
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Cys Thr His Arg Pro Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu
1745 1750 1755

Arg Leu Tyr Trp Glu Leu Ser Asn Leu Thr Asn Gly Ile Gln Glu
1760 1765 1770

Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
1775 1780 1785

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1805 1810 1815

Ser Pro Thr
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<211> 468

<212> DNA

<213> Homo sapiens

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<211> 474

<212> DNA

<213> Homo sapiens

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gtcaatgggt tcacccatca gagctctgtg tccaccacca gcactcctgg gacctccaca 420
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<210> 85

<211> 468

<212> DNA

<213> Homo sapiens

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 gtcaatgggt tcacccatcg gacctctgtg cccaccacca gcaactcctgg gacctccaca 420
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<210> 86

<211> 465

<212> DNA

<213> Homo sapiens

<400> 86
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 gtcaatgggt tcacccattg gatccctgtg cccaccagca gcaactcctgg gacctccaca 420
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<210> 87

<211> 468

<212> DNA

<213> Homo sapiens

<400> 87
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ctgaccttgc tcagggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc      240
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<212> DNA

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<210> 89

<211> 468

<212> DNA

<213> Homo sapiens

<400> 89

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cagctgaccc atggcatcaa agagctgggc ccctacaccc tggacaggaa cagtctctat	360
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<210> 90

<211> 468

<212> DNA

<213> Homo sapiens

<400> 90

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cagatgacca atggcatcaa agagctgggc ccctacaccc tggaccggaa cagtctctac	360
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<210> 91

<211> 468

<212> DNA

<213> Homo sapiens

<400> 91

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gtcaatgggt tcacccatca gaactctgtg cccaccacca gtactcctgg gacctccaca      420
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<210> 92

<211> 468

<212> DNA

<213> Homo sapiens

<400> 92

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cagctgacct acaacatcac tgagctgggc ccctacagcc tggacaggga cagtctctat      360
gtcaatgggt tcacccatca gaactctgtg cccaccacca gtactcctgg gacctccaca      420
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gtgtactggg caaccactgg gactccatcc tccttccccg gccacaca 468

<210> 93

<211> 468

<212> DNA

<213> Homo sapiens

<400> 93
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ggtctgctca agcccttggt caagaacacc agtgttggcc ctctgtactc tggctgcaga 180

ctgaccttgc tcagacctga gaagcatgag gcagccactg gagtggacac catctgtacc 240

caccgcgttg atcccatcgg acctggactg gacagggagc ggctatactg ggagctgagc 300

cagctgacca acagcattac cgaactggga ccctacaccc tggacaggga cagtctctat 360

gtcaatggct tcaaccctcg gagctctgtg ccaaccacca gcactcctgg gacctccaca 420

gtgcacctgg caacctctgg gactccatcc tccttgctg gccacaca 468

<210> 94

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 94
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gaggaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag 120
 ggtctgctca agcccttggt caagaacacc agtggtggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcagacctga gaagcatgag gcagccactg gagtggacac catctgtacc 240
 caccgcgttg atcccatcgg acctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
 gtgnacntng gnacctcngg gactccatcc tccntcccn gccncaca 468

<210> 95

<211> 468

<212> DNA

<213> Homo sapiens

<400> 95
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 ggtctgcttg gtcccatggt caagaacacc agtgctggcc ttctgtactc tggctgcaga 180
 ctgaccttgc tcaggcctga gaagaatggg gcagccactg gaatggatgc catctgcagc 240
 caccgtcttg accccaaaag ccctggactc gacagagagc agctgtactg ggagctgagc 300
 cagctgaccc atggcatcaa agagctgggc ccctacaccc tggacaggaa cagtctctat 360
 gtcaatgggt tcacccatcg gagctctgtg gccccacca gcactcctgg gacctccaca 420
 gtggaccttg ggacctcagg gactccatcc tccctcccca gccccaca 468

<210> 96

<211> 468

<212> DNA

<213> Homo sapiens

<400> 96
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 ggggaggaca tgcgtcaccc tggctccagg aagttcaaca ccacagagag ggtcctgcag 120
 ggtctgcttg gtcccttggt caagaactcc agtgtcggcc ctctgtactc tggctgcaga 180
 ctgatctctc tcagggtctga gaaggatggg gcagccactg gagtggatgc catctgcacc 240
 caccacctta accctcaaag ccctggactg gacagggagc agctgtactg gcagctgagc 300
 cagatgacca atggcatcaa agagctgggc ccctacaccc tggaccggaa cagtctctac 360
 gtcaatgggt tcacccatcg gagctctggg ctaccacca gcactccttg gacttccaca 420
 gttgacctg gaacctcagg gactccatcc cccgtcccca gccccaca 468

<210> 97

<211> 468

<212> DNA

<213> Homo sapiens

<400> 97
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 gaggaggaca tgcacgccc tggatctagg aagttcaacg ccacagagag ggtcctgcag 120
 ggtctgctta gtcccatatt caagaactcc agtggtggcc ctctgtactc tggctgcaga 180
 ctgacctctc tcaggcccga gaaggatggg gcagcaactg gaatggatgc tgtctgcctc 240
 taccacccta atcccaaaag acctggactg gacagagagc agctgtactg ggagctaagc 300
 cagctgaccc acaacatcac tgagctgggc ccctacagcc tggacaggga cagtctctat 360
 gtcaatgggt tcacccatca gagctctatg acgaccacca gaactcctga tacctccaca 420
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<210> 98

<211> 474

<212> DNA

<213> Homo sapiens


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<400> 98
accgccagcc ctctcctggt gctattcaca atcaactgca ccatcaccaa cctgcagtac      60
gaggaggaca tgcgtcgcac tggctccagg aagttcaaca ccatggagag tgtcctgcag      120
ggtctgctca agcccttggt caagaacacc agtggtggcc ctctgtactc tggctgcaga      180
ttgaccttgc tcaggcccaa gaaagatggg gcagccactg gagtggatgc catctgcacc      240
caccgccttg accccaaaag ccctggactc aacagggagc agctgtactg ggagctaagc      300
aaactgacca atgacattga agagctgggc ccctacaccc tggacaggaa cagtctctat      360
gtcaatgggt tcacccatca gagctctgtg tccaccacca gcactcctgg gacctccaca      420
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<210> 99

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 99
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gnggannaca tgcnnncncc nggntccagg aagttcaaca ccacngagag ggtcctacag      120
ggtctgctca ggcccttggt caagaacacc agtggtcagct ctctgtactc tgggtgcaga      180
ctgaccttgc tcaggcctga gaaggatggg gcagccacca gagtggatgc tgccctgcacc      240
taccgccttg atcccaaaag ccctggactg gacagagagc aactatactg ggagctgagc      300
cagctaacc cagcatcac tgagctggga ccctacaccc tggacagggt cagtctctat      360
gtcaatgggt tcaaccctcg gagctctgtg ccaaccacca gcactcctgg gacctccaca      420

```

gtgcacctgg caacctctgg gactccatcc tccctgcctg gccacaca 468

<210> 100

<211> 468

<212> DNA

<213> Homo sapiens

<400> 100
 gccctgtcc ctctcttgat accattcacc ctcaacttta ccatcaccaa cctgcattat 60
 gaagaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag 120
 ggtctgctca agcccttggt caagagcacc agcgttggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcagacctga gaaacatggg gcagccactg gagtggacgc catctgcacc 240
 ctccgccttg atccactgg tccctggactg gacagagagc ggctatactg ggagctgagc 300
 cagctgacca acagcgttac agagctgggc ccctacaccc tggacaggga cagtctctat 360
 gtcaatggct tcaccagcg gagctctgtg ccaaccacca gtattcctgg gacctctgca 420
 gtgcacctgg aaacctctgg gactccagcc tccctccctg gccacaca 468

<210> 101

<211> 468

<212> DNA

<213> Homo sapiens

<400> 101
 gccctggcc ctctcctggt gccattcacc ctcaacttca ctatcaccaa cctgcagtat 60
 gaggtggaca tgcgtcaccc tggttccagg aagttcaaca ccacggagag agtcctgcag 120
 ggtctgctca agcccttggt caagagcacc agtgttggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcaggcctga aaaacgtggg gcagccaccg gcgtggacac catctgcact 240
 caccgccttg accctctaaa cctggactg gacagagagc agctatactg ggagctgagc 300
 aaactgaccc gtggcatcat cgagctgggc ccctacctcc tggacagagg cagtctctat 360

gtcaatgggtt tcacccatcg gaactttgtg cccatcacca gcactcctgg gacctccaca 420
 gtacacctag gaacctctga aactccatcc tccctaccta gacccata 468

<210> 102

<211> 468

<212> DNA

<213> Homo sapiens

<400> 102
 gtgcctggcc ctctcctggt gccattcacc ctcaacttca ccatcaccaa cttgcagtat 60
 gaggaggcca tgcgacaccc tggctccagg aagttcaata ccacggagag ggtcctacag 120
 ggtctgctca ggcccttggt caagaatacc agtatcggcc ctctgtactc cagctgcaga 180
 ctgaccttgc tcaggccaga gaaggacaag gcagccacca gagtggatgc catctgtacc 240
 caccaccctg accctcaaag ccctggactg aacagagagc agctgtactg ggagctgagc 300
 cagctgaccc acggcatcac tgagctgggc ccctacaccc tggacaggga cagtctctat 360
 gtcgatgggtt tcactcattg gagccccata ccgaccacca gcactcctgg gacctccata 420
 gtgaacctgg gaacctctgg gatcccacct tccctccctg aaactaca 468

<210> 103

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 103
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 ggtctgctca aacccttggt caggaatagc agtctggaat acctctattc aggctgcaga 180
 ctacgctcac tcaggccaga gaaggatagc tcagccatgg cagtggatgc catctgcaca 240
 catcgccctg accctgaaga cctcggactg gacagagagc gactgtactg ggagctgagc 300
 aatctgacaa atggcatcca ggagctgggc ccctacaccc tggaccggaa cagtctctac 360
 gtcaatgggt tcacccatcg gagctctggg ctaccacca gcactccttg gacttccaca 420
 gttgacctg gaacctcagg gactccatcc cccgtcccca gccccaca 468

<210> 104

<211> 468

<212> DNA

<213> Homo sapiens

<400> 104
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 ggtctgctca cgcccttggt caagaacacc agtggtggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcagacctga gaagcaagag gcagccactg gagtggacac catctgtacc 240
 caccgcgttg atcccatcgg acctggactg gacagagagc ggctatactg ggagctgagc 300
 cagctgacca acagcatcac agagctggga ccctacaccc tggataggga cagtctctat 360
 gtcaatgggt tcaacccttg gagctctgtg ccaaccacca gcactccttg gacctccaca 420
 gtgcacctgg caacctctgg gactccatcc tccctgcctg gccacaca 468

<210> 105

<211> 468

<212> DNA

<213> Homo sapiens

<400> 105
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 ggtctgctca agcccttggt caagagcacc agcgttggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcagacctga gaaacatggg gcagccactg gagtggacgc catctgcacc 240
 ctccgccttg atcccactgg tcctggactg gacagagagc ggctatactg ggagctgagc 300
 cagctgacca acagcggtac agagctgggc ccctacaccc tggacaggga cagtctctat 360
 gtcaatggct tcacccatcg gagctctgtg ccaaccacca gtattcctgg gacctctgca 420
 gtgcacctgg aaacctctgg gactccagcc tccctccctg gccacaca 468

<210> 106

<211> 468

<212> DNA

<213> Homo sapiens

<400> 106
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 ggtctgctca agcccttggt caagaacacc agtgtcagct ctctgtactc tggttgcaga 180
 ctgaccttgc tcaggcctga gaaggatggg gcagccacca gagtggatgc tgtctgcacc 240
 catcgtcctg accccaaaag ccctggactg gacagagagc ggctgtactg gaagctgagc 300
 cagctgaccc acggcatcac tgagctgggc ccctacaccc tggacaggca cagtctctat 360
 gtcaatgggt tcacccatca gagctctatg acgaccacca gaactcctga tacctccaca 420
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<210> 107

<211> 468

<212> DNA

<213> Homo sapiens

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<400> 107
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ggtctgctca ggcctgtggt caagaacacc agtggtggcc ctctgtactc tggctgcaga      180
ctgaccacgc tcaggcccaa gaaggatggg gcagccacca aagtggatgc catctgcacc      240
taccgccctg atcccaaaag ccctggactg gacagagagc agctatactg ggagctgagc      300
cagctaacct acagcatcac tgagctgggc ccctacaccc aggacagga cagtctctat      360
gtcaatggct tcacccatcg gagctctgtg ccaaccacca gtattcctgg gacctctgca      420
gtgcacctgg aaacctctgg gactccagcc tccctccctg gccacaca                    468

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<210> 108

<211> 468

<212> DNA

<213> Homo sapiens

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<400> 108
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gaggaggaca tgcgtcacct tggttccagg aagttcaaca ccacggagag agtcctgcag      120
ggtctgctca agcccttggt caagagcacc agtggtggcc ctctgtactc tggctgcaga      180
ctgaccttgc tcaggcctga aaaacgtggg gcagccaccg gcgtggacac catctgcact      240
caccgccttg accctctaaa ccaggactg gacagagagc agctatactg ggagctgagc      300
aaactgacct gtggcatcat cgagctgggc ccctacctcc tggacagagg cagtctctat      360
gtcaatgggt tcacccatcg gacctctgtg ccaccacca gactcctgg gacctccaca      420
gtggaccttg gaacctcagg gactccattc tccctcccaa gcccgcga                    468

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<210> 109

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(465)

<223> All N's = any nucleotide

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<400> 109
ncnnctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncnccc nggntccagg aagttcaaca ccacngagag ggtcctgcag      120
actctgcttg gtcctatggt caagaacacc agtggttgcc ttctgtactc tggctgcaga      180
ctgaccttgc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc      240
cacctgtcttg accccaaaag ccctggagtg gacagggagc aactatactg ggagctgagc      300
cagctgacca atggcattaa agaactgggc ccctacaccc tggacaggaa cagtctctat      360
gtcaatgggt tcaccatttg gatccctgtg cccaccagca gcactcctgg gacctccaca      420
gtggaccttg ggtcagggac tccatcctcc ctccccagcc ccaca                        465

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<210> 110

<211> 468

<212> DNA

<213> Homo sapiens

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<400> 110
actgctggcc ctctcctggt gccgttcacc ctcaacttca ccatcaccaa cctgaagtac      60
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agtctgcttg gtcccatggt caagaacacc agtggttgcc ctctgtactc tggctgcaga      180
ctgaccttgc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc      240
cacctgtcttg accccaaaag ccctggagtg gacagggagc agctatactg ggagctgagc      300

```

cagctgacca atggcatcaa agagctgggt ccctacaccc tggacagaaa cagtctctat 360
 gtcaatgggt tcacccatca gacctctgcg cccaacacca gcactcctgg gacctccaca 420
 gtggaccttg ggacctcagg gactccatcc tccctcccca gccctaca 468

<210> 111

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(465)

<223> All N's = any nucleotide

<400> 111
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 ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga 180
 ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc 240
 caccnnctn ancccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggt tcacccattg gatccctgtg cccaccagca gcactcctgg gacctccaca 420
 gtggaccttg ggtcagggac tccatcctcc ctccccagcc ccaca 465

<210> 112

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 112

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actgctggcc ctctcctggt gccgttcacc ctcaacttca ccatcaccaa cctgaagtac      60
gaggaggaca tgcattgccc tggctccagg aagttcaaca ccacagagag agtcctgcag      120
agtctgcttg gtcccatggt caagaacacc agtggttgcc ctctgtactc tggctgcaga      180
ctgacctcgc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc      240
caccgtgttg accccaaaag ccctggagtg gacagggagc agctatactg ggagctgagc      300
cagctgacca atggcatcaa agagctgggt ccctacaccc tggacagaaa cagtctctat      360
gtcaatgggt tcacccatca gacctctgcg cccaacacca gcaactcctgg gacctccaca      420
gtgnacntng gnacctcngg gactccatcc tcctccccn gccncaca      468
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<210> 113

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 113

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gaggaggaca tgcattcacc aggtccagg aagttcaaca ccacggagcg ggtcctgcag      120
```

```

ggctctgcttg gtcccatggt caagaacacc agtgtcggcc ttctgtactc tggctgcaga 180
ctgaccttgc tcaggcctga gaagaatggg gcaaccactg gaatggatgc catctgcacc 240
caccgtcttg accccaaaag ccctggactg nacagngagc ngctntactg ggagctnagc 300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
gtcaatgggt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
gtgnacntng gnacctcngg gactccatcc tccntcccn gccncaca 468

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<210> 114

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 114

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nennctgncc ctctcctgnt nccnttcacc ntcaacttna ccatcaccaa cctgcantan 60
gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagag ggttctgcag 120
ggctctgctca aaccttggtt caggaatagc agtctggaat acctctattc aggctgcaga 180
ctagcctcac tcaggccaga gaaggatagc tcagccatgg cagtggatgc catctgcaca 240
catcgccctg acctgaaga cctcggactg gacagagagc gactgtactg ggagctgagc 300
aatctgacaa atggcatcca ggagctgggc ccctacaccc tggaccggaa cagtctctat 360
gtcaatgggt tcacccatcg aagctctatg cccaccacca gcactcctgg gacctccaca 420
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```

<210> 115

<211> 468

<212> DNA

<213> Homo sapiens

<400> 115

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actgctggcc ctctcctgat accattcacc ctcaacttca ccatcaccaa cctgcagtat      60
ggggaggaca tgggtcaccc tggctccagg aagttcaaca ccacagagag ggtcctgcag    120
ggtctgcttg gtcccatatt caagaacacc agtgttggcc ctctgtactc tggctgcaga    180
ctgacctctc tcaggtctga gaaggatgga gcagccactg gagtggatgc catctgcac    240
catcatcttg accccaaaag ccctggactc aacagagagc ggctgtactg ggagctgagc    300
caactgacca atggcatcaa agagctgggc ccctacaccc tggacaggaa cagtctctat    360
gtcaatgggt tcacccatcg gacctctgtg cccaccacca gcactcctgg gacctccaca    420
gtggaccttg gaacctcagg gactccattc tccctcccaa gccccgca      468
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<210> 116

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 116

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actgctggcc ctctcctggt gctgttcacc ctcaacttca ccatcaccaa cctgaagtat      60
gaggaggaca tgcctcggcc tggctccagg aagttcaaca ccaactgagag ggtcctgcag    120
actctgcttg gtccatgtgt caagaacacc agtgttggcc ttctgtactc tggctgcaga    180
ctgaccttgc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc    240
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```

caccgtcttg accccaaaag ccctggactg nacagnagc ngctntactg ggagctnagc 300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
gtcaatggtt tcacccatch ganctctgng cccaccacca gcactcctgg gacctccaca 420
gtgnacntng gnacctcngg gactccatcc tccntccccc gccncaca 468

```

<210> 117

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 117
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gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagag agtccttcag 120
ggctctgctca ggcctgtggt caagaacacc agtgttggcc ctctgtactc tggctgcaga 180
ctgaccttgc tcaggcccaa gaaggatggg gcagccacca aagtggatgc catctgcacc 240
taccgcccctg atcccaaaaag ccctggactg gacagagagc agctatactg ggagctgagc 300
cagctaaccc acagcatcac tgagctgggc ccctacaccc aggacaggga cagtctctat 360
gtcaatggct tcacccatcg gagctctgtg ccaaccacca gtattcctgg gacctctgca 420
gtgcacctgg aaaccactgg gactccatcc tccttccccg gccacaca 468

```

<210> 118

<211> 468

<212> DNA

<213> Homo sapiens

<400> 118
gagcctggcc ctctcctgat accattcact ttcaacttta ccatcaccaa cctgcgttat 60
gaggaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag 120
ggtctgctca agcccttggt caagaacacc agtggtggcc ctctgtactc tggctgcaga 180
ctgaccttgc tcagacctga gaagcaggag gcagccactg gagtggacac catctgtacc 240
caccgcgttg atcccatcgg acctggactg gacagagagc ggctatactg ggagctgagc 300
cagctgacca acagcatcac agagctggga ccctacaccc tggataggga cagtctctat 360
gtcgatggct tcaacccttg gagctctgtg ccaaccacca gcactcctgg gacctccaca 420
gtgcacctgg caacctctgg gactccatcc cccctgcctg gccacaca 468

<210> 119

<211> 468

<212> DNA

<213> Homo sapiens

<400> 119
gcccctgtcc ctctcttgat accattcacc ctcaacttta ccatcaccca cctgcattat 60
gaagaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag 120
ggtctgctca agcccttggt caagagcacc agcgttggcc ctctgtactc tggctgcaga 180
ctgaccttgc tcagacctga gaaacatggg gcagccactg gagtggacgc catctgcacc 240
ctccgccttg atcccactgg tcctggactg gacagagagc ggctatactg ggagctgagc 300
cagctgacca acagcatcac agagctggga ccctacaccc tggataggga cagtctctat 360
gtcaatggct tcaacccttg gagctctgtg ccaaccacca gcactcctgg gacctccaca 420
gtgcacctgg caacctctgg gactccatcc tccctgcctg gccacaca 468

<210> 120

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 120
actgctggcc ctctcctggt gccgttcacc ctcaacttca ccatcaccaa cctgaagtac      60
gaggaggaca tgcattgccc tggctccagg aagttcaaca ccacagagag agtcctgcag      120
agtctgcatg gtcccatggt caagaacacc agtggtggcc ctctgtactc tggctgcaga      180
ctgaccttgc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcacc      240
caccgctcttg accccaaaag ccctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggtt tcacccatcn ganctctgng ccaccacca gcactcctgg gacctccaca      420
gtgnacntng gnacctngg gactccatcc tccttccccn gccncaca      468

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<210> 121

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 121
ncnnctgncc ctctcctgnt nccnttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagng ngtnctgcag      120
ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga      180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc      240
caccnncntn ancccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca acagcatcac agagctggga ccctacaccc tggataggga cagtctctat      360
gtcaatgggtt tcacccatcg aagctctatg cccaccacca gtattcctgg gacctctgca      420
gtgcacctgg aaacctctgg gactccagcc tccctccctg gccacaca      468

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<210> 122

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 122
gccccctggcc ctctcctggt gccattcacc ctcaacttca ctatcaccaa cctgcagtat      60
gaggaggaca tgcgtcaccc tggttccagg aagttcaaca ccacggagag agtcctgcag      120
ggtctgttca agcccttggt caagagcacc agtggtggcc ctctgtactc tggctgcaga      180
ctgaccttgc tcaggcctga aaaacgtggg gcagccaccg gcgtggacac catctgcact      240
caccgccttg accctctaaa ccctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggtt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca      420
gtgnacntng gnacctngg gactccatcc tccntcccn gccncaca      468

```

<210> 123
 <211> 468
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(468)
 <223> All N's = any nucleotide

<400> 123
 ncnncctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan 60
 gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagng ngtnctgcag 120
 ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga 180
 ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc 240
 caccnncntn ancccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggtt ttcacctcg gagctctgtg ccaaccacca gcactcctgg gacctccaca 420
 gtgcacctgg caacctctgg gactccatcc tccctgctg gccacaca 468

<210> 124
 <211> 468
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 124

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gccccgtgcc ctctcttgat accattcacc ctcaacttta ccatcaccaa cctgcattat      60
gaagaaaaca tgcaacaccc tgggtccagg aagttcaaca ccacggagcg ggtcctgcag      120
ggtctgcttg gtcccatggt caagaacaca agtgtcggcc ttctgtactc tggctgcaga      180
ctgaccttgc tcaggcctga gaagaatggg gcagccactg gaatggatgc catctgcagc      240
caccgtcttg accccaaaag ccctggactg nacagnagag ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatggtt tcacccatcn gancctctgng cccaccacca gcactcctgg gacctccaca      420
gtgnacntng gnacctcngg gactccatcc tccntcccn gccncaca      468

```

<210> 125

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 125

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ncnctgncc ctctcctgnt ncncttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncncc nggntccagg aagttcaaca ccacngagng ngtnctgcag      120
ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga      180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc      240
caccnncntn ancccaaaaag ncctggactg nacagnagag ngctntactg ggagctnagc      300

```

canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggtt tcacccatca gaactctgtg cccaccacca gtactcctgg gacctccaca 420
 gtgtactggg caaccactgg gactccatcc tccttccccg gccacaca 468

<210> 126

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 126
 gagcctggcc ctctcctgat accattcact ttcaacttta ccatcaccaa cctgcattat 60
 gaggaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag 120
 ggtctgctca cgcccttggt caagaacacc agtgttggcc ctctgtactc tggctgcaga 180
 ctgaccttgc tcagacctga gaagcaggag gcagccactg gagtggacac catctgtacc 240
 caccgcgttg atcccatcgg acctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggtt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
 gtgnacntng gnacctcngg gactccatcc tccttccccn gccncaca 468

<210> 127

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 127

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ncnnctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncnccc nggntccagg aagttcaaca ccacngagng ngtnctgcag      120
ggctctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga      180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc      240
caccnnctn ancccaaaag ncctggactg nacagnagac ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggt tcacccatcg gagctctgtg ccaaccacca gcagtcctgg gacctccaca      420
gtgcacctgg caacctctgg gactccatcc tccctgctg gccacaca                      468
```

<210> 128

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 128

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gccctgtcc ctctcttgat accattcacc ctcaacttta ccatcaccaa cctgcattat      60
gaagaaaaca tgcaacaccc tggttccagg aagttcaaca ccacggagag ggttctgcag      120
```

```

ggctctgctca agcccttggt caagagcacc agtgttggcc ctctgtactc tggctgcaga 180
ctgaccttgc tcagacctga gaaacatggg gcagccactg gagtggacgc catctgcacc 240
ctccgccttg atcccactgg tcctggactg nacagngagc ngctntactg ggagctnagc 300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
gtcaatgggt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
gtgnacntng gnacctcngg gactccatcc tccntcccn gccncaca 468

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<210> 129

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 129

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ncnnctgncc ctctcctgnt nccnttcacc ntcaacttna ccatcaccaa cctgcantan 60
gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagng ngtnctgcag 120
ggctctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga 180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc 240
caccnnentn ancccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc 300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
gtcaatgggt tcacccatcg gacctctgtg cccaccacca gcactcctgg gacctccaca 420
gtgcacctgg caacctctgg gactccatcc tccctgcctg gccacaca 468

```

<210> 130

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 130

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gcccctgtcc ctctcttgat accattcacc ctcaacttta ccatcaccaa cctgcagtat      60
gaggaggaca tgcatcgccc tggatctagg aagttcaaca ccacagagag ggtcctgcag      120
ggtctgctta gtcccathtt caagaactcc agtggtggcc ctctgtactc tggctgcaga      180
ctgacctctc tcaggcccga gaaggatggg gcagcaactg gaatggatgc tgtctgcctc      240
taccacccta atccccaaag acctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca      420
gtgnacntng gnacctcngg gactccatcc tcctccccn gccncaca      468

```

<210> 131

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 131
ncnnctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncnccc nggntccagg aagttcaaca ccacngagng ngtnctgcag      120
ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga      180
ctgacctnnc tcaggnncga gaagnatggn gcagccactg gantggatgc catctgcanc      240
caccnncntn anccccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggtt tcacccattg gagctctggg ctaccacca gcactccttg gacttccaca      420
gttgaccttg gaacctcagg gactccatcc cccgtcccca gccccaca      468

```

<210> 132

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 132
actgctggcc ctctcctggt gccattcacc ctaaacttca ccatcaccaa cctgcagtat      60
gaggaggaca tgcctcgccc tggatctagg aagttcaacg ccacagagag ggtcctgcag      120
ggtctgctta gtcccatatt caagaacacc agtggtggcc ctctgtactc tggctgcaga      180
ctgaccttgc tcagacctga gaagcaggag gcagccactg gagtggacac catctgtacc      240
caccgcgttg atcccatcgg acctggactg nacagngagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatgggtt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca      420

```

gtgnacntng gnacctcngg gactccatcc tccttcccn gccncaca 468

<210> 133

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 133

ncnnctgncc ctctcctgnt nccnttcacc ntcaacttna ccatcaccaa cctgcantan 60

gnggannaca tgcnnncnccc nggntccagg aagttcaaca ccacngagng ngtnctgcag 120

ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga 180

ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc 240

caccnnentn ancccaaaag nccctggactg nacagngagc ngctntactg ggagctnagc 300

canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360

gtcaatgggtt tcacccatcg gagctttggg ctaccacca gcactccttg gacttccaca 420

gttgaccttg gaacctcagg gactccatcc ccogtcccca gccccaca 468

<210> 134

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 134

actgctggcc ctctcctggt gccattcacc ctaaacttca ccatcaccaa cctgcagtat	60
gaggaggaca tgcacgccc tggctccagg aagttcaaca ccacggagag ggtccttcag	120
ggtctgctta cgcccttggt caggaacacc agtgtcagct ctctgtactc tggttgcaga	180
ctgaccttgc tcaggcctga gaaggatggg gcagccacca gagtggatgc tgtctgcacc	240
catcgctcctg accccaaaag ccctggactg nacagngagc ngctntactg ggagctnagc	300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat	360
gtcaatgggt tcacccatcn ganctctgng cccaccacca gactcctgg gacctccaca	420
gtgnacntng gnacctcngg gactccatcc tcntcccn gccncaca	468

<210> 135

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(465)

<223> All N's = any nucleotide

<400> 135

ncnnctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan	60
gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagng ngtnctgcag	120
ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga	180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc	240

caccnncntn ancccaaaag ncctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggtt tcacccattg gatccctgtg cccaccagca gcactcctgg gacctccaca 420
 gtggaccttg ggtcagggac tccatcctcc ctccccagcc ccaca 465

<210> 136

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 136
 actgctggcc ctctcctggt accattcacc ctcaacttca ccatcaccaa cctgcagtat 60
 ggggaggaca tgggtcaccc tggctccagg aagttcaaca ccacagagag ggtcctgcag 120
 ggtctgcttg gtcccatatt caagaacacc agtggtggcc ctctgtactc tggctgcaga 180
 ctgacctctc tcaggtccga gaaggatgga gcagccactg gagtggatgc catctgcac 240
 catcatcttg accccaaaag ccctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggtt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
 gtgnacntng gnacctcngg gactccatcc tcctccccn gccncaca 468

<210> 137

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 137
nennctgncc ctctcctgnt ncnnttcacc ntcaacttna ccatcaccaa cctgcantan      60
gnggannaca tgcnnncnccc nggntccagg aagttcaaca ccacngagng ngtnctgcag      120
ggtctgctnn nccccntntt caagaacncc agtgtnggcc ntctgtactc tggctgcaga      180
ctgacctnnc tcaggncnga gaagnatggn gcagccactg gantggatgc catctgcanc      240
caccnncntn ancccaaaag ncctggactg nacagnagagc ngctntactg ggagctnagc      300
canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat      360
gtcaatggtt tcacccatca gacctttgcg cccaacacca gcactcctgg gacctccaca      420
gtggaccttg ggacctcagg gactccatcc tccctcccca gccctaca                      468

```

<210> 138

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

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<400> 138
tctgctggcc ctctcctggt gccattcacc ctcaacttca ccatcaccaa cctgcagtac      60

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gaggaggaca tgcatacccc aggtccagg aagttcaaca ccacggagcg ggtcctgcag 120
 ggtctgcttg gtcccatgtt caagaacacc agtgtcggcc ttctgtactc tggctgcaga 180
 ctgaccttgc tcaggcctga gaagaatggg gcagccacca gagtggatgc tgtctgcacc 240
 catcgtcctg accccaaaag ccctggactg nacagngagc ngctntactg ggagctnagc 300
 canctgacca annncatcnn ngagctgggn ccctacaccc tggacaggna cagtctctat 360
 gtcaatgggt tcacccatcn ganctctgng cccaccacca gcactcctgg gacctccaca 420
 gtgnacntng gnacctcngg gactccatcc tccntcccn gccncaca 468

<210> 139

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(468)

<223> All N's = any nucleotide

<400> 139

ncnctgncc ctctcctgnt ncnttcacc ntcaacttna ccatcaccaa cctgcantan 60
 gnggannaca tgcnnncccc nggntccagg aagttcaaca ccacngagag ggttctgcag 120
 ggtctgctca agcccttggt caagagcacc agtggtggcc ctctgtattc tggctgcaga 180
 ctgaccttgc tcaggcctga gaaggacgga gtagccacca gagtggacgc catctgcacc 240
 caccgccttg accccaaaat ccctgggcta gacagacagc agctatactg ggagctgagc 300
 cagctgaccc acagcatcac tgagctggga ccctacaccc tggataggga cagtctctat 360
 gtcaatgggt tcacccagcg gagctctgtg cccaccacca gcactcctgg gactttcaca 420
 gtacagccgg aaacctctga gactccatca tccctccctg gccccaca 468

<210> 140

<211> 468

<212> DNA

<213> Homo sapiens

<400> 140

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gccactggcc ctgtcctgct gccattcacc ctcaatttta ccatcactaa cctgcagtat      60
gaggaggaca tgcatcgccc tggctccagg aagttcaaca ccacggagag ggtccttcag     120
ggtctgctta tgcccttggt caagaacacc agtgtcagct ctctgtactc tggttgcaga     180
ctgaccttgc tcaggcctga gaaggatggg gcagccacca gagtggatgc tgtctgcacc     240
catcgctcctg accccaaaag ccctggactg gacagagagc ggctgtactg gaagctgagc     300
cagctgaccc acggcatcac tgagctgggc ccctacaccc tggacaggca cagtctctat     360
gtcaatgggtt tcacccatca gagctctatg acgaccacca gaactcctga tacctccaca     420
atgcacctgg caacctcgag aactccagcc tccctgtctg gacctacg                    468
```

<210> 141

<211> 468

<212> DNA

<213> Homo sapiens

<400> 141

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accgccagcc ctctcctggt gctattcaca attaacttca ccatcactaa cctgcgggtat      60
gaggagaaca tgcatcaccc tggctctaga aagtttaaca ccacggagag agtccttcag     120
ggtctgctca ggcctgtggt caagaacacc agtggtggcc ctctgtactc tggctgcaga     180
ctgaccttgc tcaggcccaa gaaggatggg gcagccacca aagtggatgc catctgcacc     240
taccgccctg atcccaaaaag ccctggactg gacagagagc agctatactg ggagctgagc     300
cagctaaccc acagcatcac tgagctgggc ccctacaccc tggacaggga cagtctctat     360
gtcaatgggtt tcacacagcg gagctctgtg cccaccacta gcattcctgg gacccccaca     420
gtggacctgg gaacatctgg gactccagtt tctaaacctg gtcctctg                    468
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<210> 142

<211> 468

<212> DNA

<213> Homo sapiens

<400> 142

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gctgccagcc ctctcctggt gctattcact ctcaacttca ccatcaccaa cctgcggtat      60
gaggagaaca tgcagcaccc tggctccagg aagttcaaca ccacggagag ggtccttcag    120
ggcctgctca ggtccctggt caagagcacc agtggtggcc ctctgtactc tggctgcaga    180
ctgactttgc tcaggcctga aaaggatggg acagccactg gagtggatgc catctgcacc    240
caccaccctg accccaaaag ccctaggctg gacagagagc agctgtattg ggagctgagc    300
cagctgaccc acaatatcac tgagctgggc cactatgccc tggacaacga cagcctcttt    360
gtcaatgggt tcactcatcg gagctctgtg tccaccacca gcactcctgg gacccccaca    420
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<211> 399

<212> DNA

<213> Homo sapiens

<400> 143

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ctgctaaggc ccttggttcaa gaacaccagt gttggccctc tgtactctgg ctccaggctg    180
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cgccctgacc ccacaggccc tgggctggac agagagcagc tgtatttgga gctgagccag    300
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<211> 453

<212> DNA

<213> Homo sapiens

<400> 144

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cacctgctca gtcctttggt ccagaggagc agcctgggtg cacggtacac aggctgcagg    180
gtcatcgcac taaggctctgt gaagaacggt gctgagacac ggggtggacct cctctgcacc    240
tacctgcagc ccctcagcgg cccaggctctg cctatcaagc aggtgttcca tgagctgagc    300
cagcagaccc atggcatcac ccggctgggc ccctactctc tggacaaaga cagcctctac    360
cttaacgggtt acaatgaacc tggctctagat gagcctccta caactcccaa gccagccacc    420
acattcctgc ctctctgtc agaagccaca aca                                     453
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<212> DNA

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ctgctcagac ccttggttcca gaagagcagc atgggcccct tctacttggg ttgccaactg    180
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caccctgacc ctgtggggcc cgggctggac atacagcagc tttactggga gctgagtcag    300
ctgacccatg gtgtcaccca actgggcttc tatgtcctgg acagggatag cctcttcac    360
aatggctatg caccocagaa tttatcaatc cggggcgagt accagataaa tttccacatt    420
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465

<210> 146

<211> 9799

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<223> Any "X" = any amino acid

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Asn	Ser	Ser	Leu	Glu	Tyr	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Ala	Ser	Leu
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Arg	Pro	Glu	Lys	Asp	Ser	Ser	Ala	Met	Ala	Val	Asp	Ala	Ile	Cys	Thr
65					70					75					80

His	Arg	Pro	Asp	Pro	Glu	Asp	Leu	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr
				85					90					95	

Trp	Glu	Leu	Ser	Asn	Leu	Thr	Asn	Gly	Ile	Gln	Glu	Leu	Gly	Pro	Tyr
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Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser
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Ser Met Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val Gly
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Thr Ser Gly Thr Pro Ser Ser Ser Pro Ser Pro Thr Ala Ala Gly Pro
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Leu Leu Met Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr
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Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu
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Ser Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val
 195 200 205

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys
 210 215 220

Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp
 225 230 235 240

Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser
 245 250 255

Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp Arg
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Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser Thr
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Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly Thr
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Pro Ser Ser Leu Ser Ser Pro Thr Ile Met Ala Ala Gly Pro Leu Leu
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Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Gly Glu
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Asp Met Gly His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val
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Leu Gln Gly Leu Leu Gly Pro Ile Phe Lys Asn Thr Ser Val Gly Pro
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Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Ser Glu Lys Asp Gly
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Ala Ala Thr Gly Val Asp Ala Ile Cys Ile His His Leu Asp Pro Lys
 385 390 395 400

Ser Pro Gly Leu Asn Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu
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Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser
 420 425 430

Leu Tyr Val Asn Gly Phe Thr His Arg Thr Ser Val Pro Thr Ser Ser
 435 440 445

Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Phe
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Ser Leu Pro Ser Pro Ala Thr Ala Gly Pro Leu Leu Val Leu Phe Thr
 465 470 475 480

Leu Asn Phe Thr Ile Thr Asn Leu Lys Tyr Glu Glu Asp Met His Arg
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Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Thr Leu
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Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly
 515 520 525

Cys Arg Leu Thr Leu Leu Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly
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Val Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu
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Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile
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Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn
580 585 590

Gly Phe Thr His Trp Ile Pro Val Pro Thr Ser Ser Thr Pro Gly Thr
595 600 605

Ser Thr Val Asp Leu Gly Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro
610 615 620

Thr Ala Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile
625 630 635 640

Thr Asn Leu Gln Tyr Glu Glu Asp Met His His Pro Gly Ser Arg Lys
645 650 655

Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe
660 665 670

Lys Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu
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Leu Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys
690 695 700

Thr His Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu
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Tyr Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro
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Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln
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Thr Ser Ala Pro Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu
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Gly Thr Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Ser Ala Gly
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Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln
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Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr
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Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser
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Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Ser Glu
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Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu
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Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp Glu Leu
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Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp
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Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Thr Ser Ala Pro
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Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly
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Thr Pro Ser Ser Leu Pro Ser Pro Thr Ser Ala Gly Pro Leu Leu Val
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Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp
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Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
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180

Gln Gly Leu Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu
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Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asn Gly Ala
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Ala Thr Gly Met Asp Ala Ile Cys Ser His Arg Leu Asp Pro Lys
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Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln
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Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg
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Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Ala
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Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser
 1070 1075 1080

Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Val Pro Leu
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Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr
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Gly Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr
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Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn Ser
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Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu Arg
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Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr
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His His Leu Asn Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln Leu
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Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
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His	Arg	Ser	Ser	Gly	Leu	Thr	Thr	Ser	Thr	Pro	Trp	Thr	Ser	Thr
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1295						1300					1305			
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1445						1450					1455			
Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Ser	Leu	Arg	Pro	Glu	Lys
1460						1465					1470			
Asp	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala	Val	Cys	Leu	Tyr	His	Pro
1475						1480					1485			
Asn	Pro	Lys	Arg	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Cys	Glu
1490						1495					1500			
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1565						1570					1575			
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Ile Cys	Thr His Arg Val	Asp	Pro Ile Gly Pro	Gly	Leu Asp Arg
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Glu Arg	Leu Tyr Trp Glu	Leu	Ser Gln Leu Thr	Asn	Ser Ile Thr
1655		1660		1665	
Glu Leu	Gly Pro Tyr Thr	Leu	Asp Arg Asp Ser	Leu	Tyr Val Asn
1670		1675		1680	
Gly Phe	Asn Pro Arg Ser	Ser	Val Pro Thr Thr	Ser	Thr Pro Gly
1685		1690		1695	
Thr Ser	Thr Val His Leu	Ala	Thr Ser Gly Thr	Pro	Ser Ser Leu
1700		1705		1710	
Pro Gly	His Thr Ala Pro	Val	Pro Leu Leu Ile	Pro	Phe Thr Leu
1715		1720		1725	
Asn Phe	Thr Ile Thr Asn	Leu	His Tyr Glu Glu	Asn	Met Gln His
1730		1735		1740	
Pro Gly	Ser Arg Lys Phe	Asn	Thr Thr Glu Arg	Val	Leu Gln Gly
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Leu Leu	Lys Pro Leu Phe	Lys	Asn Thr Ser Val	Gly	Pro Leu Tyr
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Ser Gly	Cys Arg Leu Thr	Leu	Leu Arg Pro Glu	Lys	His Glu Ala
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Ala Thr 1790	Gly Val Asp Thr 1795	Ile Cys Thr His Arg Val 1800	Asp Pro Ile
Gly Pro 1805	Gly Leu Asp Arg Glu 1810	Xaa Leu Tyr Trp Glu 1815	Leu Ser Xaa
Leu Thr 1820	Xaa Xaa Ile Xaa Glu 1825	Leu Gly Pro Tyr Xaa 1830	Leu Asp Arg
Xaa Ser 1835	Leu Tyr Val Asn Gly 1840	Phe Xaa Xaa Xaa Xaa 1845	Xaa Xaa Xaa
Xaa Thr 1850	Ser Thr Pro Gly Thr 1855	Ser Xaa Val Xaa Leu 1860	Xaa Thr Ser
Gly Thr 1865	Pro Xaa Xaa Xaa Pro 1870	Xaa Xaa Thr Ser Ala 1875	Gly Pro Leu
Leu Val 1880	Pro Phe Thr Leu Asn 1885	Phe Thr Ile Thr Asn 1890	Leu Gln Tyr
Glu Glu 1895	Asp Met His His Pro 1900	Gly Ser Arg Lys Phe 1905	Asn Thr Thr
Glu Arg 1910	Val Leu Gln Gly Leu 1915	Leu Gly Pro Met Phe 1920	Lys Asn Thr
Ser Val 1925	Gly Leu Leu Tyr Ser 1930	Gly Cys Arg Leu Thr 1935	Leu Leu Arg
Pro Glu 1940	Lys Asn Gly Ala Ala 1945	Thr Gly Met Asp Ala 1950	Ile Cys Ser
His Arg 1955	Leu Asp Pro Lys Ser 1960	Pro Gly Leu Asp Arg 1965	Glu Gln Leu
Tyr Trp 1970	Glu Leu Ser Gln Leu 1975	Thr His Gly Ile Lys 1980	Glu Leu Gly
Pro Tyr 1985	Thr Leu Asp Arg Asn 1990	Ser Leu Tyr Val Asn 1995	Gly Phe Thr

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2015						2020					2025			
Thr	Thr	Ala	Val	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr
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Pro	Leu	Phe	Lys	Asn	Ser	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys
2075						2080					2085			
Arg	Leu	Ile	Ser	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly
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Val	Asp	Ala	Ile	Cys	Thr	His	His	Leu	Asn	Pro	Gln	Ser	Pro	Gly
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Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Gln	Leu	Ser	Gln	Met	Thr	Asn
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Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu
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Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Gly	Leu	Thr	Thr	Ser
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Thr	Pro	Trp	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro
2165						2170					2175			
Ser	Pro	Val	Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu	Leu	Val	Pro
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Phe Thr	Leu Asn Phe Thr	Ile	Thr Asn Leu Gln Tyr	Glu Glu Asp
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Met His	Arg Pro Gly Ser	Arg	Lys Phe Asn Ala Thr	Glu Arg Val
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Leu Gln	Gly Leu Leu Ser	Pro	Ile Phe Lys Asn Ser	Ser Val Gly
2225		2230		2235
Pro Leu	Tyr Ser Gly Cys	Arg	Leu Thr Ser Leu Arg	Pro Glu Lys
2240		2245		2250
Asp Gly	Ala Ala Thr Gly	Met	Asp Ala Val Cys Leu	Tyr His Pro
2255		2260		2265
Asn Pro	Lys Arg Pro Gly	Leu	Asp Arg Glu Gln Leu	Tyr Trp Glu
2270		2275		2280
Leu Ser	Gln Leu Thr His	Asn	Ile Thr Glu Leu Gly	Pro Tyr Ser
2285		2290		2295
Leu Asp	Arg Asp Ser Leu Tyr	Val	Asn Gly Phe Thr	His Gln Ser
2300		2305		2310
Ser Met	Thr Thr Thr Arg	Thr	Pro Asp Thr Ser Thr	Met His Leu
2315		2320		2325
Ala Thr	Ser Arg Thr Pro	Ala	Ser Leu Ser Gly Pro	Thr Thr Ala
2330		2335		2340
Ser Pro	Leu Leu Val Leu	Phe	Thr Ile Asn Cys Thr	Ile Thr Asn
2345		2350		2355
Leu Gln	Tyr Glu Glu Asp	Met	Arg Arg Thr Gly Ser	Arg Lys Phe
2360		2365		2370
Asn Thr	Met Glu Ser Val	Leu	Gln Gly Leu Leu Lys	Pro Leu Phe
2375		2380		2385
Lys Asn	Thr Ser Val Gly	Pro	Leu Tyr Ser Gly Cys	Arg Leu Thr
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Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asn	Arg
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2435						2440					2445			
Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn
2450						2455					2460			
Gly	Phe	Thr	His	Gln	Ser	Ser	Val	Ser	Thr	Thr	Ser	Thr	Pro	Gly
2465						2470					2475			
Thr	Ser	Thr	Val	Asp	Leu	Arg	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu
2480						2485					2490			
Ser	Ser	Pro	Thr	Ile	Met	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe
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Gln	Gly	Leu	Leu	Arg	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Ser	Ser
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2555						2560					2565			
Gly	Ala	Ala	Thr	Arg	Val	Asp	Ala	Ala	Cys	Thr	Tyr	Arg	Pro	Asp
2570						2575					2580			
Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu
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Ser	Gln	Leu	Thr	His	Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu
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2615						2620					2625			
Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	His	Leu	Ala
2630						2635					2640			
Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Gly	His	Thr	Ala	Pro	Val
2645						2650					2655			
Pro	Leu	Leu	Ile	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu
2660						2665					2670			
His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn
2675						2680					2685			
Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Arg	Pro	Leu	Phe	Lys
2690						2695					2700			
Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu
2705						2710					2715			
Leu	Arg	Pro	Glu	Lys	His	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile
2720						2725					2730			
Cys	Thr	Leu	Arg	Leu	Asp	Pro	Thr	Gly	Pro	Gly	Leu	Asp	Arg	Glu
2735						2740					2745			
Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Ser	Val	Thr	Glu
2750						2755					2760			
Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly
2765						2770					2775			
Phe	Thr	Gln	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile	Pro	Gly	Thr
2780						2785					2790			
Ser	Ala	Val	His	Leu	Glu	Thr	Ser	Gly	Thr	Pro	Ala	Ser	Leu	Pro
2795						2800					2805			

Gly	His	Thr	Ala	Pro	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn
2810						2815					2820			
Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Val	Asp	Met	Arg	His	Pro
2825						2830					2835			
Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu
2840						2845					2850			
Leu	Lys	Pro	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser
2855						2860					2865			
Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Arg	Gly	Ala	Ala
2870						2875					2880			
Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Leu	Asn
2885						2890					2895			
Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Lys	Leu
2900						2905					2910			
Thr	Arg	Gly	Ile	Ile	Glu	Leu	Gly	Pro	Tyr	Leu	Leu	Asp	Arg	Gly
2915						2920					2925			
Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Asn	Phe	Val	Pro	Ile
2930						2935					2940			
Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	His	Leu	Gly	Thr	Ser	Glu
2945						2950					2955			
Thr	Pro	Ser	Ser	Leu	Pro	Arg	Pro	Ile	Val	Pro	Gly	Pro	Leu	Leu
2960						2965					2970			
Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu
2975						2980					2985			
Glu	Ala	Met	Arg	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu
2990						2995					3000			

Arg Val 3005	Leu Gln Gly Leu Leu 3010	Arg Pro Leu Phe Lys 3015	Asn Thr Ser
Ile Gly 3020	Pro Leu Tyr Ser Ser 3025	Cys Arg Leu Thr Leu 3030	Leu Arg Pro
Glu Lys 3035	Asp Lys Ala Ala Thr 3040	Arg Val Asp Ala Ile 3045	Cys Thr His
His Pro 3050	Asp Pro Gln Ser Pro 3055	Gly Leu Asn Arg Glu 3060	Gln Leu Tyr
Trp Glu 3065	Leu Ser Gln Leu Thr 3070	His Gly Ile Thr Glu 3075	Leu Gly Pro
Tyr Thr 3080	Leu Asp Arg Asp Ser 3085	Leu Tyr Val Asp Gly 3090	Phe Thr His
Trp Ser 3095	Pro Ile Pro Thr Thr 3100	Ser Thr Pro Gly Thr 3105	Ser Ile Val
Asn Leu 3110	Gly Thr Ser Gly Ile 3115	Pro Pro Ser Leu Pro 3120	Glu Thr Thr
Xaa Xaa 3125	Xaa Pro Leu Leu Xaa 3130	Pro Phe Thr Leu Asn 3135	Phe Thr Ile
Thr Asn 3140	Leu Xaa Tyr Glu Glu 3145	Xaa Met Xaa Xaa Pro 3150	Gly Ser Arg
Lys Phe 3155	Asn Thr Thr Glu Arg 3160	Val Leu Gln Gly Leu 3165	Leu Lys Pro
Leu Phe 3170	Arg Asn Ser Ser Leu 3175	Glu Tyr Leu Tyr Ser 3180	Gly Cys Arg
Leu Ala 3185	Ser Leu Arg Pro Glu 3190	Lys Asp Ser Ser Ala 3195	Met Ala Val
Asp Ala 3200	Ile Cys Thr His Arg 3205	Pro Asp Pro Glu Asp 3210	Leu Gly Leu

Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Asn	Leu	Thr	Asn	Gly
3215						3220					3225			
Ile	Gln	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr
3230						3235					3240			
Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Phe	Leu	Thr	Thr	Ser	Thr
3245						3250					3255			
Pro	Trp	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser
3260						3265					3270			
Pro	Val	Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu	Leu	Val	Pro	Phe
3275						3280					3285			
Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met
3290						3295					3300			
His	Arg	Pro	Gly	Ser	Arg	Arg	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu
3305						3310					3315			
Gln	Gly	Leu	Leu	Thr	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro
3320						3325					3330			
Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Gln
3335						3340					3345			
Glu	Ala	Ala	Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val	Asp
3350						3355					3360			
Pro	Ile	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu
3365						3370					3375			
Ser	Gln	Leu	Thr	Asn	Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu
3380						3385					3390			
Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Asn	Pro	Trp	Ser	Ser
3395						3400					3405			

Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	His	Leu	Ala
3410						3415					3420			
Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Gly	His	Thr	Ala	Pro	Val
3425						3430					3435			
Pro	Leu	Leu	Ile	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asp	Leu
3440						3445					3450			
His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn
3455						3460					3465			
Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys
3470						3475					3480			
Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu
3485						3490					3495			
Leu	Arg	Pro	Glu	Lys	His	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile
3500						3505					3510			
Cys	Thr	Leu	Arg	Leu	Asp	Pro	Thr	Gly	Pro	Gly	Leu	Asp	Arg	Glu
3515						3520					3525			
Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Ser	Val	Thr	Glu
3530						3535					3540			
Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly
3545						3550					3555			
Phe	Thr	His	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile	Pro	Gly	Thr
3560						3565					3570			
Ser	Ala	Val	His	Leu	Glu	Thr	Ser	Gly	Thr	Pro	Ala	Ser	Leu	Pro
3575						3580					3585			
Gly	His	Thr	Ala	Pro	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn
3590						3595					3600			
Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	Arg	His	Pro
3605						3610					3615			

Gly	Ser	Arg	Lys	Phe	Ser	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu
3620						3625					3630			
Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr	Ser
3635						3640					3645			
Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asp	Gly	Ala	Ala
3650						3655					3660			
Thr	Arg	Val	Asp	Ala	Val	Cys	Thr	His	Arg	Pro	Asp	Pro	Lys	Ser
3665						3670					3675			
Pro	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Lys	Leu	Ser	Gln	Leu
3680						3685					3690			
Thr	His	Gly	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	His
3695						3700					3705			
Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Ser	Ser	Met	Thr	Thr
3710						3715					3720			
Thr	Arg	Thr	Pro	Asp	Thr	Ser	Thr	Met	His	Leu	Ala	Thr	Ser	Arg
3725						3730					3735			
Thr	Pro	Ala	Ser	Leu	Ser	Gly	Pro	Thr	Thr	Ala	Ser	Pro	Leu	Leu
3740						3745					3750			
Val	Leu	Phe	Thr	Ile	Asn	Phe	Thr	Ile	Thr	Asn	Gln	Arg	Tyr	Glu
3755						3760					3765			
Glu	Asn	Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu
3770						3775					3780			
Arg	Val	Leu	Gln	Gly	Leu	Leu	Arg	Pro	Val	Phe	Lys	Asn	Thr	Ser
3785						3790					3795			
Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro
3800						3805					3810			

Lys	Lys	Asp	Gly	Ala	Ala	Thr	Lys	Val	Asp	Ala	Ile	Cys	Thr	Tyr
3815						3820					3825			
Arg	Pro	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr
3830						3835					3840			
Trp	Glu	Leu	Ser	Gln	Leu	Thr	His	Ser	Ile	Thr	Glu	Leu	Gly	Pro
3845						3850					3855			
Tyr	Thr	Gln	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His
3860						3865					3870			
Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile	Pro	Gly	Thr	Ser	Ala	Val
3875						3880					3885			
His	Leu	Glu	Thr	Ser	Gly	Thr	Pro	Ala	Ser	Leu	Pro	Gly	His	Thr
3890						3895					3900			
Ala	Pro	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile
3905						3910					3915			
Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	Arg	His	Pro	Gly	Ser	Arg
3920						3925					3930			
Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro
3935						3940					3945			
Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg
3950						3955					3960			
Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Arg	Gly	Ala	Ala	Thr	Gly	Val
3965						3970					3975			
Asp	Thr	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Leu	Asn	Pro	Gly	Leu
3980						3985					3990			
Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Lys	Leu	Thr	Arg	Gly
3995						4000					4005			
Ile	Ile	Glu	Leu	Gly	Pro	Tyr	Leu	Leu	Asp	Arg	Gly	Ser	Leu	Tyr
4010						4015					4020			

Val	Asn	Gly	Phe	Thr	His	Arg	Thr	Ser	Val	Pro	Thr	Thr	Ser	Thr
4025						4030					4035			
Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Phe
4040						4045					4050			
Ser	Leu	Pro	Ser	Pro	Ala	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe
4055						4060					4065			
Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met
4070						4075					4080			
Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu
4085						4090					4095			
Gln	Thr	Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn	Thr	Ser	Val	Gly	Leu
4100						4105					4110			
Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Ser	Glu	Lys	Asp
4115						4120					4125			
Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp
4130						4135					4140			
Pro	Lys	Ser	Pro	Gly	Val	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu
4145						4150					4155			
Ser	Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu
4160						4165					4170			
Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Trp	Ile	Pro
4175						4180					4185			
Val	Pro	Thr	Ser	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly
4190						4195					4200			
Ser	Gly	Thr	Pro	Ser	Leu	Pro	Ser	Ser	Pro	Thr	Thr	Ala	Gly	Pro
4205						4210					4215			

Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Lys
4220						4225					4230			
Tyr	Glu	Glu	Asp	Met	His	Cys	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr
4235						4240					4245			
Thr	Glu	Arg	Val	Leu	Gln	Ser	Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn
4250						4255					4260			
Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu
4265						4270					4275			
Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys
4280						4285					4290			
Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Val	Asp	Arg	Glu	Gln
4295						4300					4305			
Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu
4310						4315					4320			
Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe
4325						4330					4335			
Thr	His	Gln	Thr	Ser	Ala	Pro	Asn	Thr	Ser	Thr	Pro	Gly	Thr	Ser
4340						4345					4350			
Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser
4355						4360					4365			
Pro	Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe
4370						4375					4380			
Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly
4385						4390					4395			
Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu
4400						4405					4410			
Xaa	Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly
4415						4420					4425			

Cys Arg	Leu Thr	Leu Leu	Arg	Xaa Glu	Lys Xaa	Xaa	Ala Ala	Thr
4430			4435			4440		
Xaa Val	Asp Xaa	Xaa Cys	Xaa	Xaa Xaa	Xaa Asp	Pro	Xaa Xaa	Pro
4445			4450			4455		
Gly Leu	Asp Arg	Glu Xaa	Leu	Tyr Trp	Glu Leu	Ser	Xaa Leu	Thr
4460			4465			4470		
Xaa Xaa	Ile Xaa	Glu Leu	Gly	Pro Tyr	Xaa Leu	Asp	Arg Xaa	Ser
4475			4480			4485		
Leu Tyr	Val Asn	Gly Phe	Thr	His Trp	Ile Pro	Val	Pro Thr	Ser
4490			4495			4500		
Ser Thr	Pro Gly	Thr Ser	Thr	Val Asp	Leu Gly	Ser	Gly Thr	Pro
4505			4510			4515		
Ser Ser	Leu Pro	Ser Pro	Thr	Thr Ala	Gly Pro	Leu	Leu Val	Pro
4520			4525			4530		
Phe Thr	Leu Asn	Phe Thr	Ile	Thr Asn	Leu Lys	Tyr	Glu Glu	Asp
4535			4540			4545		
Met His	Cys Pro	Gly Ser	Arg	Lys Phe	Asn Thr	Thr	Glu Arg	Val
4550			4555			4560		
Leu Gln	Ser Leu	Leu Gly	Pro	Met Phe	Lys Asn	Thr	Ser Val	Gly
4565			4570			4575		
Pro Leu	Tyr Ser	Gly Cys	Arg	Leu Thr	Ser Leu	Arg	Ser Glu	Lys
4580			4585			4590		
Asp Gly	Ala Ala	Thr Gly	Val	Asp Ala	Ile Cys	Thr	His Arg	Val
4595			4600			4605		
Asp Pro	Lys Ser	Pro Gly	Val	Asp Arg	Glu Gln	Leu	Tyr Trp	Glu
4610			4615			4620		

Leu Ser	Gln Leu Thr Asn Gly	Ile Lys Glu Leu Gly	Pro Tyr Thr
4625	4630	4635	
Leu Asp	Arg Asn Ser Leu Tyr	Val Asn Gly Phe Thr	His Gln Thr
4640	4645	4650	
Ser Ala	Pro Asn Thr Ser Thr	Pro Gly Thr Ser Thr	Val Asp Leu
4655	4660	4665	
Gly Thr	Ser Gly Thr Pro Ser	Ser Leu Pro Ser Pro	Thr Ser Ala
4670	4675	4680	
Gly Pro	Leu Leu Val Pro Phe	Thr Leu Asn Phe Thr	Ile Thr Asn
4685	4690	4695	
Leu Gln	Tyr Glu Glu Asp Met	His His Pro Gly Ser	Arg Lys Phe
4700	4705	4710	
Asn Thr	Thr Glu Arg Val Leu	Gln Gly Leu Leu Gly	Pro Met Phe
4715	4720	4725	
Lys Asn	Thr Ser Val Gly Leu	Leu Tyr Ser Gly Cys	Arg Leu Thr
4730	4735	4740	
Leu Leu	Arg Pro Glu Lys Asn	Gly Ala Ala Thr Gly	Met Asp Ala
4745	4750	4755	
Ile Cys	Thr His Arg Leu Asp	Pro Lys Ser Pro Gly	Leu Asp Arg
4760	4765	4770	
Glu Xaa	Leu Tyr Trp Glu Leu	Ser Xaa Leu Thr Xaa	Xaa Ile Xaa
4775	4780	4785	
Glu Leu	Gly Pro Tyr Xaa Leu	Asp Arg Xaa Ser Leu	Tyr Val Asn
4790	4795	4800	
Gly Phe	Xaa Xaa Xaa Xaa Xaa	Xaa Xaa Xaa Thr Ser	Thr Pro Gly
4805	4810	4815	
Thr Ser	Xaa Val Xaa Leu Xaa	Thr Ser Gly Thr Pro	Xaa Xaa Xaa
4820	4825	4830	

Pro Xaa	Xaa Thr Xaa Xaa Xaa	Pro Leu Leu Xaa	Pro Phe Thr Leu
4835	4840	4845	
Asn Phe	Thr Ile Thr Asn Leu	Xaa Tyr Glu Glu Xaa	Met Xaa Xaa
4850	4855	4860	
Pro Gly	Ser Arg Lys Phe Asn	Thr Thr Glu Arg Val	Leu Gln Gly
4865	4870	4875	
Leu Leu	Lys Pro Leu Phe Arg	Asn Ser Ser Leu Glu	Tyr Leu Tyr
4880	4885	4890	
Ser Gly	Cys Arg Leu Ala Ser	Leu Arg Pro Glu Lys	Asp Ser Ser
4895	4900	4905	
Ala Met	Ala Val Asp Ala Ile	Cys Thr His Arg Pro	Asp Pro Glu
4910	4915	4920	
Asp Leu	Gly Leu Asp Arg Glu	Arg Leu Tyr Trp Glu	Leu Ser Asn
4925	4930	4935	
Leu Thr	Asn Gly Ile Gln Glu	Leu Gly Pro Tyr Thr	Leu Asp Arg
4940	4945	4950	
Asn Ser	Leu Tyr Val Asn Gly	Phe Thr His Arg Ser	Ser Met Pro
4955	4960	4965	
Thr Thr	Ser Thr Pro Gly Thr	Ser Thr Val Asp Val	Gly Thr Ser
4970	4975	4980	
Gly Thr	Pro Ser Ser Ser Pro	Ser Pro Thr Thr Ala	Gly Pro Leu
4985	4990	4995	
Leu Ile	Pro Phe Thr Leu Asn	Phe Thr Ile Thr Asn	Leu Gln Tyr
5000	5005	5010	
Gly Glu	Asp Met Gly His Pro	Gly Ser Arg Lys Phe	Asn Thr Thr
5015	5020	5025	

Glu Arg	Val Leu Gln Gly	Leu	Leu Gly Pro Ile	Phe	Lys Asn Thr
5030		5035		5040	
Ser Val	Gly Pro Leu Tyr	Ser	Gly Cys Arg Leu	Thr	Ser Leu Arg
5045		5050		5055	
Ser Glu	Lys Asp Gly Ala	Ala	Thr Gly Val Asp	Ala	Ile Cys Ile
5060		5065		5070	
His His	Leu Asp Pro Lys	Ser	Pro Gly Leu Asn	Arg	Glu Arg Leu
5075		5080		5085	
Tyr Trp	Glu Leu Ser Gln	Leu	Thr Asn Gly Ile	Lys	Glu Leu Gly
5090		5095		5100	
Pro Tyr	Thr Leu Asp Arg	Asn	Ser Leu Tyr Val	Asn	Gly Phe Thr
5105		5110		5115	
His Arg	Thr Ser Val Pro	Thr	Thr Ser Thr Pro	Gly	Thr Ser Thr
5120		5125		5130	
Val Asp	Leu Gly Thr Ser	Gly	Thr Pro Phe Ser	Leu	Pro Ser Pro
5135		5140		5145	
Ala Thr	Ala Gly Pro Leu	Leu	Val Leu Phe Thr	Leu	Asn Phe Thr
5150		5155		5160	
Ile Thr	Asn Leu Lys Tyr	Glu	Glu Asp Met His	Arg	Pro Gly Ser
5165		5170		5175	
Arg Lys	Phe Asn Thr Thr	Glu	Arg Val Leu Gln	Thr	Leu Leu Gly
5180		5185		5190	
Pro Met	Phe Lys Asn Thr	Ser	Val Gly Leu Leu	Tyr	Ser Gly Cys
5195		5200		5205	
Arg Leu	Thr Leu Leu Arg	Ser	Glu Lys Asp Gly	Ala	Ala Thr Gly
5210		5215		5220	
Val Asp	Ala Ile Cys Thr	His	Arg Leu Asp Pro	Lys	Ser Pro Gly
5225		5230		5235	

Leu Asp 5240	Arg Glu Xaa Leu Tyr 5245	Trp Glu Leu Ser Xaa 5250	Leu Thr Xaa
Xaa Ile 5255	Xaa Glu Leu Gly Pro 5260	Tyr Xaa Leu Asp Arg 5265	Xaa Ser Leu
Tyr Val 5270	Asn Gly Phe Xaa Xaa 5275	Xaa Xaa Xaa Xaa Xaa 5280	Xaa Thr Ser
Thr Pro 5285	Gly Thr Ser Xaa Val 5290	Xaa Leu Xaa Thr Ser 5295	Gly Thr Pro
Xaa Xaa 5300	Xaa Pro Xaa Xaa Thr 5305	Xaa Xaa Xaa Pro Leu 5310	Leu Xaa Pro
Phe Thr 5315	Leu Asn Phe Thr Ile 5320	Thr Asn Leu Xaa Tyr 5325	Glu Glu Xaa
Met Xaa 5330	Xaa Pro Gly Ser Arg 5335	Lys Phe Asn Thr Thr 5340	Glu Arg Val
Leu Gln 5345	Gly Leu Leu Arg Pro 5350	Val Phe Lys Asn Thr 5355	Ser Val Gly
Pro Leu 5360	Tyr Ser Gly Cys Arg 5365	Leu Thr Leu Leu Arg 5370	Pro Lys Lys
Asp Gly 5375	Ala Ala Thr Lys Val 5380	Asp Ala Ile Cys Thr 5385	Tyr Arg Pro
Asp Pro 5390	Lys Ser Pro Gly Leu 5395	Asp Arg Glu Gln Leu 5400	Tyr Trp Glu
Leu Ser 5405	Gln Leu Thr His Ser 5410	Ile Thr Glu Leu Gly 5415	Pro Tyr Thr
Gln Asp 5420	Arg Asp Ser Leu Tyr 5425	Val Asn Gly Phe Thr 5430	His Arg Ser

Ser Val 5435	Pro Thr Thr Ser Ile 5440	Pro Gly Thr Ser Ala 5445	Val His Leu
Glu Thr 5450	Thr Gly Thr Pro Ser 5455	Ser Phe Pro Gly His 5460	Thr Glu Pro
Gly Pro 5465	Leu Leu Ile Pro Phe 5470	Thr Phe Asn Phe Thr 5475	Ile Thr Asn
Leu Arg 5480	Tyr Glu Glu Asn Met 5485	Gln His Pro Gly Ser 5490	Arg Lys Phe
Asn Thr 5495	Thr Glu Arg Val Leu 5500	Gln Gly Leu Leu Thr 5505	Pro Leu Phe
Lys Asn 5510	Thr Ser Val Gly Pro 5515	Leu Tyr Ser Gly Cys 5520	Arg Leu Thr
Leu Leu 5525	Arg Pro Glu Lys Gln 5530	Glu Ala Ala Thr Gly 5535	Val Asp Thr
Ile Cys 5540	Thr His Arg Val Asp 5545	Pro Ile Gly Pro Gly 5550	Leu Asp Arg
Glu Arg 5555	Leu Tyr Trp Glu Leu 5560	Ser Gln Leu Thr Asn 5565	Ser Ile Thr
Glu Leu 5570	Gly Pro Tyr Thr Leu 5575	Asp Arg Asp Ser Leu 5580	Tyr Val Asp
Gly Phe 5585	Asn Pro Trp Ser Ser 5590	Val Pro Thr Thr Ser 5595	Thr Pro Gly
Thr Ser 5600	Thr Val His Leu Ala 5605	Thr Ser Gly Thr Pro 5610	Ser Pro Leu
Pro Gly 5615	His Thr Ala Pro Val 5620	Pro Leu Leu Ile Pro 5625	Phe Thr Leu
Asn Phe 5630	Thr Ile Thr Asp Leu 5635	His Tyr Glu Glu Asn 5640	Met Gln His

Pro Gly 5645	Ser Arg Lys Phe Asn 5650	Thr Thr Glu Arg Val 5655	Leu Gln Gly
Leu Leu 5660	Lys Pro Leu Phe Lys 5665	Ser Thr Ser Val Gly 5670	Pro Leu Tyr
Ser Gly 5675	Cys Arg Leu Thr Leu 5680	Leu Arg Pro Glu Lys 5685	His Gly Ala
Ala Thr 5690	Gly Val Asp Ala Ile 5695	Cys Thr Leu Arg Leu 5700	Asp Pro Thr
Gly Pro 5705	Gly Leu Asp Arg Glu 5710	Arg Leu Tyr Trp Glu 5715	Leu Ser Gln
Leu Thr 5720	Asn Ser Ile Thr Glu 5725	Leu Gly Pro Tyr Thr 5730	Leu Asp Arg
Asp Ser 5735	Leu Tyr Val Asn Gly 5740	Phe Asn Pro Trp Ser 5745	Ser Val Pro
Thr Thr 5750	Ser Thr Pro Gly Thr 5755	Ser Thr Val His Leu 5760	Ala Thr Ser
Gly Thr 5765	Pro Ser Ser Leu Pro 5770	Gly His Thr Thr Ala 5775	Gly Pro Leu
Leu Val 5780	Pro Phe Thr Leu Asn 5785	Phe Thr Ile Thr Asn 5790	Leu Lys Tyr
Glu Glu 5795	Asp Met His Cys Pro 5800	Gly Ser Arg Lys Phe 5805	Asn Thr Thr
Glu Arg 5810	Val Leu Gln Ser Leu 5815	His Gly Pro Met Phe 5820	Lys Asn Thr
Ser Val 5825	Gly Pro Leu Tyr Ser 5830	Gly Cys Arg Leu Thr 5835	Leu Leu Arg

Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr
5840						5845					5850			
His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu
5855						5860					5865			
Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly
5870						5875					5880			
Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa
5885						5890					5895			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa
5900						5905					5910			
Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa
5915						5920					5925			
Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr
5930						5935					5940			
Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser
5945						5950					5955			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa
5960						5965					5970			
Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys
5975						5980					5985			
Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa
5990						5995					6000			
Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly
6005						6010					6015			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Asn
6020						6025					6030			
Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asp	Ser	Leu
6035						6040					6045			

Tyr Val 6050	Asn Gly Phe Thr His 6055	Arg Ser Ser Met Pro 6060	Thr Thr Ser
Ile Pro 6065	Gly Thr Ser Ala Val 6070	His Leu Glu Thr Ser 6075	Gly Thr Pro
Ala Ser 6080	Leu Pro Gly His Thr 6085	Ala Pro Gly Pro Leu 6090	Leu Val Pro
Phe Thr 6095	Leu Asn Phe Thr Ile 6100	Thr Asn Leu Gln Tyr 6105	Glu Glu Asp
Met Arg 6110	His Pro Gly Ser Arg 6115	Lys Phe Asn Thr Thr 6120	Glu Arg Val
Leu Gln 6125	Gly Leu Leu Lys Pro 6130	Leu Phe Lys Ser Thr 6135	Ser Val Gly
Pro Leu 6140	Tyr Ser Gly Cys Arg 6145	Leu Thr Leu Leu Arg 6150	Pro Glu Lys
Arg Gly 6155	Ala Ala Thr Gly Val 6160	Asp Thr Ile Cys Thr 6165	His Arg Leu
Asp Pro 6170	Leu Asn Pro Gly Leu 6175	Asp Arg Glu Xaa Leu 6180	Tyr Trp Glu
Leu Ser 6185	Xaa Leu Thr Xaa Xaa 6190	Ile Xaa Glu Leu Gly 6195	Pro Tyr Xaa
Leu Asp 6200	Arg Xaa Ser Leu Tyr 6205	Val Asn Gly Phe Xaa 6210	Xaa Xaa Xaa
Xaa Xaa 6215	Xaa Xaa Thr Ser Thr 6220	Pro Gly Thr Ser Xaa 6225	Val Xaa Leu
Xaa Thr 6230	Ser Gly Thr Pro Xaa 6235	Xaa Xaa Pro Xaa Xaa 6240	Thr Xaa Xaa

Xaa Pro 6245	Leu Leu Xaa Pro	Phe 6250	Thr Leu Asn Phe Thr 6255	Ile Thr Asn
Leu Xaa 6260	Tyr Glu Glu Xaa Met 6265	Xaa Xaa Pro Gly Ser 6270	Arg Lys Phe	
Asn Thr 6275	Thr Glu Arg Val Leu 6280	Gln Gly Leu Leu Xaa 6285	Pro Xaa Phe	
Lys Xaa 6290	Thr Ser Val Gly Xaa 6295	Leu Tyr Ser Gly Cys 6300	Arg Leu Thr	
Leu Leu 6305	Arg Xaa Glu Lys Xaa 6310	Xaa Ala Ala Thr Xaa 6315	Val Asp Xaa	
Xaa Cys 6320	Xaa Xaa Xaa Xaa Asp 6325	Pro Xaa Xaa Pro Gly 6330	Leu Asp Arg	
Glu Xaa 6335	Leu Tyr Trp Glu Leu 6340	Ser Xaa Leu Thr Xaa 6345	Xaa Ile Xaa	
Glu Leu 6350	Gly Pro Tyr Xaa Leu 6355	Asp Arg Xaa Ser Leu 6360	Tyr Val Asn	
Gly Phe 6365	His Pro Arg Ser Ser 6370	Val Pro Thr Thr Ser 6375	Thr Pro Gly	
Thr Ser 6380	Thr Val His Leu Ala 6385	Thr Ser Gly Thr Pro 6390	Ser Ser Leu	
Pro Gly 6395	His Thr Ala Pro Val 6400	Pro Leu Leu Ile Pro 6405	Phe Thr Leu	
Asn Phe 6410	Thr Ile Thr Asn Leu 6415	His Tyr Glu Glu Asn 6420	Met Gln His	
Pro Gly 6425	Ser Arg Lys Phe Asn 6430	Thr Thr Glu Arg Val 6435	Leu Gln Gly	
Leu Leu 6440	Gly Pro Met Phe Lys 6445	Asn Thr Ser Val Gly 6450	Leu Leu Tyr	

Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala
6455						6460					6465			
Ala	Thr	Gly	Met	Asp	Ala	Ile	Cys	Ser	His	Arg	Leu	Asp	Pro	Lys
6470						6475					6480			
Ser	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa
6485						6490					6495			
Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg
6500						6505					6510			
Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
6515						6520					6525			
Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser
6530						6535					6540			
Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Pro	Leu
6545						6550					6555			
Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr
6560						6565					6570			
Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr
6575						6580					6585			
Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa	Pro	Xaa	Phe	Lys	Xaa	Thr
6590						6595					6600			
Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg
6605						6610					6615			
Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa	Val	Asp	Xaa	Xaa	Cys	Xaa
6620						6625					6630			
Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu
6635						6640					6645			

Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly
6650						6655					6660			
Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
6665						6670					6675			
His	Gln	Asn	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
6680						6685					6690			
Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His
6695						6700					6705			
Thr	Glu	Pro	Gly	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Phe	Asn	Phe	Thr
6710						6715					6720			
Ile	Thr	Asn	Leu	His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser
6725						6730					6735			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Thr
6740						6745					6750			
Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys
6755						6760					6765			
Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Gln	Glu	Ala	Ala	Thr	Gly
6770						6775					6780			
Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val	Asp	Pro	Ile	Gly	Pro	Gly
6785						6790					6795			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa
6800						6805					6810			
Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu
6815						6820					6825			
Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser
6830						6835					6840			
Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro
6845						6850					6855			

Xaa Xaa	Xaa Pro Xaa Xaa	Thr	Xaa Xaa Xaa Pro	Leu	Leu Xaa Pro
6860		6865		6870	
Phe Thr	Leu Asn Phe Thr	Ile	Thr Asn Leu Xaa	Tyr	Glu Glu Xaa
6875		6880		6885	
Met Xaa	Xaa Pro Gly Ser	Arg	Lys Phe Asn Thr	Thr	Glu Arg Val
6890		6895		6900	
Leu Gln	Gly Leu Leu Xaa	Pro	Xaa Phe Lys Xaa	Thr	Ser Val Gly
6905		6910		6915	
Xaa Leu	Tyr Ser Gly Cys	Arg	Leu Thr Leu Leu	Arg	Xaa Glu Lys
6920		6925		6930	
Xaa Xaa	Ala Ala Thr Xaa	Val	Asp Xaa Xaa Cys	Xaa	Xaa Xaa Xaa
6935		6940		6945	
Asp Pro	Xaa Xaa Pro Gly	Leu	Asp Arg Glu Xaa	Leu	Tyr Trp Glu
6950		6955		6960	
Leu Ser	Xaa Leu Thr Xaa	Xaa	Ile Xaa Glu Leu	Gly	Pro Tyr Xaa
6965		6970		6975	
Leu Asp	Arg Xaa Ser Leu	Tyr	Val Asn Gly Phe	Thr	His Arg Ser
6980		6985		6990	
Ser Val	Pro Thr Thr Ser	Ser	Pro Gly Thr Ser	Thr	Val His Leu
6995		7000		7005	
Ala Thr	Ser Gly Thr Pro	Ser	Ser Leu Pro Gly	His	Thr Ala Pro
7010		7015		7020	
Val Pro	Leu Leu Ile Pro	Phe	Thr Leu Asn Phe	Thr	Ile Thr Asn
7025		7030		7035	
Leu His	Tyr Glu Glu Asn	Met	Gln His Pro Gly	Ser	Arg Lys Phe
7040		7045		7050	

Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe
7055						7060					7065			
Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
7070						7075					7080			
Leu	Leu	Arg	Pro	Glu	Lys	His	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala
7085						7090					7095			
Ile	Cys	Thr	Leu	Arg	Leu	Asp	Pro	Thr	Gly	Pro	Gly	Leu	Asp	Arg
7100						7105					7110			
Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa
7115						7120					7125			
Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn
7130						7135					7140			
Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly
7145						7150					7155			
Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa
7160						7165					7170			
Pro	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu
7175						7180					7185			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa
7190						7195					7200			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
7205						7210					7215			
Leu	Leu	Xaa	Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr
7220						7225					7230			
Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala
7235						7240					7245			
Ala	Thr	Xaa	Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa
7250						7255					7260			

Xaa Pro 7265	Gly Leu Asp Arg Glu 7270	Xaa Leu Tyr Trp Glu 7275	Leu Ser Xaa
Leu Thr 7280	Xaa Xaa Ile Xaa Glu 7285	Leu Gly Pro Tyr Xaa 7290	Leu Asp Arg
Xaa Ser 7295	Leu Tyr Val Asn Gly 7300	Phe Thr His Arg Thr 7305	Ser Val Pro
Thr Thr 7310	Ser Thr Pro Gly Thr 7315	Ser Thr Val His Leu 7320	Ala Thr Ser
Gly Thr 7325	Pro Ser Ser Leu Pro 7330	Gly His Thr Ala Pro 7335	Val Pro Leu
Leu Ile 7340	Pro Phe Thr Leu Asn 7345	Phe Thr Ile Thr Asn 7350	Leu Gln Tyr
Glu Glu 7355	Asp Met His Arg Pro 7360	Gly Ser Arg Lys Phe 7365	Asn Thr Thr
Glu Arg 7370	Val Leu Gln Gly Leu 7375	Leu Ser Pro Ile Phe 7380	Lys Asn Ser
Ser Val 7385	Gly Pro Leu Tyr Ser 7390	Gly Cys Arg Leu Thr 7395	Ser Leu Arg
Pro Glu 7400	Lys Asp Gly Ala Ala 7405	Thr Gly Met Asp Ala 7410	Val Cys Leu
Tyr His 7415	Pro Asn Pro Lys Arg 7420	Pro Gly Leu Asp Arg 7425	Glu Gln Leu
Tyr Cys 7430	Glu Leu Ser Gln Leu 7435	Thr His Asn Ile Thr 7440	Glu Leu Gly
Pro Tyr 7445	Ser Leu Asp Arg Asp 7450	Ser Leu Tyr Val Asn 7455	Gly Phe Thr

His	Gln	Asn	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
7460						7465					7470			
Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His
7475						7480					7485			
Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr
7490						7495					7500			
Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser
7505						7510					7515			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa
7520						7525					7530			
Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys
7535						7540					7545			
Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa
7550						7555					7560			
Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly
7565						7570					7575			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa
7580						7585					7590			
Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu
7595						7600					7605			
Tyr	Val	Asn	Gly	Phe	Thr	His	Trp	Ser	Ser	Gly	Leu	Thr	Thr	Ser
7610						7615					7620			
Thr	Pro	Trp	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro
7625						7630					7635			
Ser	Pro	Val	Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu	Leu	Val	Pro
7640						7645					7650			
Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp
7655						7660					7665			

Met	His	Arg	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Ala	Thr	Glu	Arg	Val
7670						7675					7680			
Leu	Gln	Gly	Leu	Leu	Ser	Pro	Ile	Phe	Lys	Asn	Thr	Ser	Val	Gly
7685						7690					7695			
Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys
7700						7705					7710			
Gln	Glu	Ala	Ala	Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val
7715						7720					7725			
Asp	Pro	Ile	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu
7730						7735					7740			
Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa
7745						7750					7755			
Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa
7760						7765					7770			
Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu
7775						7780					7785			
Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Xaa	Xaa
7790						7795					7800			
Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
7805						7810					7815			
Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe
7820						7825					7830			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa	Pro	Xaa	Phe
7835						7840					7845			
Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
7850						7855					7860			

Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa	Val	Asp	Xaa
7865						7870					7875			
Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly	Leu	Asp	Arg
7880						7885					7890			
Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa
7895						7900					7905			
Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn
7910						7915					7920			
Gly	Phe	Thr	His	Arg	Ser	Phe	Gly	Leu	Thr	Thr	Ser	Thr	Pro	Trp
7925						7930					7935			
Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Pro	Val
7940						7945					7950			
Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu
7955						7960					7965			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	His	Arg
7970						7975					7980			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
7985						7990					7995			
Leu	Leu	Thr	Pro	Leu	Phe	Arg	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr
8000						8005					8010			
Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asp	Gly	Ala
8015						8020					8025			
Ala	Thr	Arg	Val	Asp	Ala	Val	Cys	Thr	His	Arg	Pro	Asp	Pro	Lys
8030						8035					8040			
Ser	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa
8045						8050					8055			
Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg
8060						8065					8070			

Xaa Ser 8075	Leu Tyr Val	Asn Gly 8080	Phe Xaa Xaa Xaa Xaa 8085	Xaa Xaa Xaa
Xaa Thr 8090	Ser Thr Pro Gly	Thr 8095	Ser Xaa Val Xaa	Leu Xaa Thr Ser 8100
Gly Thr 8105	Pro Xaa Xaa Xaa	Pro 8110	Xaa Xaa Thr Xaa	Xaa Xaa Pro Leu 8115
Leu Xaa 8120	Pro Phe Thr Leu	Asn 8125	Phe Thr Ile Thr	Asn Leu Xaa Tyr 8130
Glu Glu 8135	Xaa Met Xaa Xaa	Pro 8140	Gly Ser Arg Lys	Phe Asn Thr Thr 8145
Glu Arg 8150	Val Leu Gln Gly	Leu 8155	Leu Xaa Pro Xaa	Phe Lys Xaa Thr 8160
Ser Val 8165	Gly Xaa Leu Tyr	Ser 8170	Gly Cys Arg Leu	Thr Leu Leu Arg 8175
Xaa Glu 8180	Lys Xaa Xaa Ala	Ala 8185	Thr Xaa Val Asp	Xaa Xaa Cys Xaa 8190
Xaa Xaa 8195	Xaa Asp Pro Xaa	Xaa 8200	Pro Gly Leu Asp	Arg Glu Xaa Leu 8205
Tyr Trp 8210	Glu Leu Ser Xaa	Leu 8215	Thr Xaa Xaa Ile	Xaa Glu Leu Gly 8220
Pro Tyr 8225	Xaa Leu Asp Arg	Xaa 8230	Ser Leu Tyr Val	Asn Gly Phe Thr 8235
His Trp 8240	Ile Pro Val Pro	Thr 8245	Ser Ser Thr Pro	Gly Thr Ser Thr 8250
Val Asp 8255	Leu Gly Ser Gly	Thr 8260	Pro Ser Ser Leu	Pro Ser Pro Thr 8265

Thr Ala	Gly Pro	Leu Leu	Val	Pro Phe	Thr Leu	Asn	Phe Thr	Ile
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8285			8290			8295		
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8315			8320			8325		
Leu Thr	Ser Leu	Arg Ser	Glu	Lys Asp	Gly Ala	Ala	Thr Gly	Val
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Val Asn	Gly Phe	Xaa Xaa	Xaa	Xaa Xaa	Xaa Xaa	Xaa	Thr Ser	Thr
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Pro Gly	Thr Ser	Xaa Val	Xaa	Leu Xaa	Thr Ser	Gly	Thr Pro	Xaa
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8435			8440			8445		
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8465			8470			8475		

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Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu
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Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu
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Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala	Ala	Thr	Arg	Val	Asp	Ala	Val
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Cys	Thr	His	Arg	Pro	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu
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Xaa Leu 8675	Tyr Trp Glu Leu Ser 8680	Xaa Leu Thr Xaa Xaa 8685	Ile Xaa Glu
Leu Gly 8690	Pro Tyr Xaa Leu Asp 8695	Arg Xaa Ser Leu Tyr 8700	Val Asn Gly
Phe Xaa 8705	Xaa Xaa Xaa Xaa Xaa 8710	Xaa Xaa Thr Ser Thr 8715	Pro Gly Thr
Ser Xaa 8720	Val Xaa Leu Xaa Thr 8725	Ser Gly Thr Pro Xaa 8730	Xaa Xaa Pro
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Phe Thr 8750	Ile Thr Asn Leu Xaa 8755	Tyr Glu Glu Xaa Met 8760	Xaa Xaa Pro
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Leu Lys 8780	Pro Leu Phe Lys Ser 8785	Thr Ser Val Gly Pro 8790	Leu Tyr Ser
Gly Cys 8795	Arg Leu Thr Leu Leu 8800	Arg Pro Glu Lys Asp 8805	Gly Val Ala
Thr Arg 8810	Val Asp Ala Ile Cys 8815	Thr His Arg Pro Asp 8820	Pro Lys Ile
Pro Gly 8825	Leu Asp Arg Gln Gln 8830	Leu Tyr Trp Glu Leu 8835	Ser Gln Leu
Thr His 8840	Ser Ile Thr Glu Leu 8845	Gly Pro Tyr Thr Leu 8850	Asp Arg Asp
Ser Leu 8855	Tyr Val Asn Gly Phe 8860	Thr Gln Arg Ser Ser 8865	Val Pro Thr
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Gln	Ser	Ser	Met	Thr	Thr	Thr	Arg	Thr	Pro	Asp	Thr	Ser	Thr	Met
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Glu	Gly	Val	Leu	Gln	His	Leu	Leu	Arg	Pro	Leu	Phe	Gln	Lys	Ser
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Ser Met Gly Pro Phe Tyr Leu Gly Cys Gln Leu Ile Ser Leu Arg
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Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Thr Thr Cys Thr
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Tyr His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile Gln Gln Leu
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Tyr Trp Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln Leu Gly
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Phe Tyr Val Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly Tyr Ala
 9755 9760 9765

Pro Gln Asn Leu Ser Ile Arg Gly Glu Tyr Gln Ile Asn Phe His
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Tyr

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<211> 1422

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Ser Thr Glu Gly Val Leu Gln His Leu Leu Arg Pro Leu Phe Gln Lys
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Ser Ser Met Gly Pro Phe Tyr Leu Gly Cys Gln Leu Ile Ser Leu Arg
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Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Thr Thr Cys Thr Tyr
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His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile Gln Gln Leu Tyr Trp
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Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln Leu Gly Phe Tyr Val
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Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly Tyr Ala Pro Gln Asn Leu
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Ser Ile Arg Gly Glu Tyr Gln Ile Asn Phe His Ile Val Asn Trp Asn
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Leu Ser Asn Pro Asp Pro Thr Ser Ser Glu Tyr Ile Thr Leu Leu Arg
 145 150 155 160

Asp Ile Gln Asp Lys Val Thr Thr Leu Tyr Lys Gly Ser Gln Leu His
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Asp Thr Phe Arg Phe Cys Leu Val Thr Asn Leu Thr Met Asp Ser Val
 180 185 190

Leu Val Thr Val Lys Ala Leu Phe Ser Ser Asn Leu Asp Pro Ser Leu
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Val Glu Gln Val Phe Leu Asp Lys Thr Leu Asn Ala Ser Phe His Trp
 210 215 220

Leu Gly Ser Thr Tyr Gln Leu Val Asp Ile His Val Thr Glu Met Glu
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Ser Ser Val Tyr Gln Pro Thr Ser Ser Ser Thr Gln His Phe Tyr
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Leu Asn Phe Thr Ile Thr Asn Leu Pro Tyr Ser Gln Asp Lys Ala Gln
 260 265 270

Pro Gly Thr Thr Asn Tyr Gln Arg Asn Lys Arg Asn Ile Glu Asp Ala
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Leu Asn Gln Leu Phe Arg Asn Ser Ser Ile Lys Ser Tyr Phe Ser Asp
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Cys Gln Val Ser Thr Phe Arg Ser Val Pro Asn Arg His His Thr Gly
 305 310 315 320

Val Asp Ser Leu Cys Asn Phe Ser Pro Leu Ala Arg Arg Val Asp Arg
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Val Ala Ile Tyr Glu Glu Phe Leu Arg Met Thr Arg Asn Gly Thr Gln
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Leu Gln Asn Phe Thr Leu Asp Arg Ser Ser Val Leu Val Asp Gly Tyr
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Ser Pro Asn Arg Asn Glu Pro Leu Thr Gly Asn Ser Asp Leu Pro Phe
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Trp Ala Val Ile Leu Ile Gly Leu Ala Gly Leu Leu Gly Leu Ile Thr
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Cys Leu Ile Cys Gly Val Leu Val Thr Thr Arg Arg Arg Lys Lys Glu
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Leu Asp Leu Glu Asp Leu Gln
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Glu Thr Thr Thr Thr Ala Leu Lys Thr Thr Thr Thr Ala Leu Lys Thr
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Thr Ser Arg Ala Thr Leu Thr Thr Ser Val Tyr Thr Pro Thr Leu Gly
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Thr Glu Met Met Ile Thr Thr Pro Tyr Val Phe Pro Asp Val Pro Glu
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Thr Leu Asp Val Ser Ser Ser Glu Pro Asp Thr Thr Ala Ser Trp Val
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Ile His Pro Ala Glu Thr Ile Pro Thr Val Ser Lys Thr Thr Pro Asn
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Phe Phe His Ser Glu Leu Asp Thr Val Ser Ser Thr Ala Thr Ser His
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Gly Ala Asp Val Ser Ser Ala Ile Pro Thr Asn Ile Ser Pro Ser Glu
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Thr Ile Pro Asn Phe Ser His His Glu Ser Asp Ala Thr Pro Ser Ile
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Ala Thr Ser Pro Gly Ala Glu Thr Ser Ser Ala Ile Pro Ile Met Thr
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Val Ser Pro Gly Ala Glu Asp Leu Val Thr Ser Gln Val Thr Ser Ser
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Gly Thr Asp Arg Asn Met Thr Ile Pro Thr Leu Thr Leu Ser Pro Gly
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Glu Pro Lys Thr Ile Ala Ser Leu Val Thr His Pro Glu Ala Gln Thr
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Ser Ser Ala Ile Pro Thr Ser Thr Ile Ser Pro Ala Val Ser Arg Leu
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Val Thr Ser Met Val Thr Ser Leu Ala Ala Lys Thr Ser Thr Thr Asn
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Arg Ala Leu Thr Asn Ser Pro Gly Glu Pro Ala Thr Thr Val Ser Leu
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Val Thr His Pro Ala Gln Thr Ser Pro Thr Val Pro Trp Thr Thr Ser
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Ile Phe Phe His Ser Lys Ser Asp Thr Thr Pro Ser Met Thr Thr Ser
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His Gly Ala Glu Ser Ser Ser Ala Val Pro Thr Pro Thr Val Ser Thr
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Glu Val Pro Gly Val Val Thr Pro Leu Val Thr Ser Ser Arg Ala Val
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Ile Ser Thr Thr Ile Pro Ile Leu Thr Leu Ser Pro Gly Glu Pro Glu
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Leu Val Thr Ser Ser Arg Ala Val Thr Ser Thr Thr Ile Pro Ile Leu
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Pro Gly Met Val Thr Ser Leu Val Ala Ser Ser Arg Ala Val Thr Ser
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Thr Thr Leu Pro Thr Leu Thr Leu Ser Pro Gly Glu Pro Glu Thr Thr
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Ala Ser Ser Ala Val Pro Thr Pro Thr Val Ser Pro Gly Val Ser Gly
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Val Val Thr Pro Leu Val Thr Ser Ser Arg Ala Val Thr Ser Thr Thr
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Ile Pro Ile Leu Thr Leu Ser Ser Ser Glu Pro Glu Thr Thr Pro Ser
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Ser Pro Glu Val Pro Gly Met Val Thr Ser Leu Val Thr Ser Ser Arg
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Ala Val Thr Ser Thr Thr Ile Pro Thr Leu Thr Ile Ser Ser Asp Glu
 740 745 750

Pro Glu Thr Thr Thr Ser Leu Val Thr His Ser Glu Ala Lys Met Ile
 755 760 765

Ser Ala Ile Pro Thr Leu Ala Val Ser Pro Thr Val Gln Gly Leu Val
 770 775 780

Thr Ser Leu Val Thr Ser Ser Gly Ser Glu Thr Ser Ala Phe Ser Asn
 785 790 795 800

Leu Thr Val Ala Ser Ser Gln Pro Glu Thr Ile Asp Ser Trp Val Ala
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His Pro Gly Thr Glu Ala Ser Ser Val Val Pro Thr Leu Thr Val Ser
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Thr Gly Glu Pro Phe Thr Asn Ile Ser Leu Val Thr His Pro Ala Glu
835 840 845

Ser Ser Ser Thr Leu Pro Arg Thr Thr Ser Arg Phe Ser His Ser Glu
850 855 860

Leu Asp Thr Met Pro Ser Thr Val Thr Ser Pro Glu Ala Glu Ser Ser
865 870 875 880

Ser Ala Ile Ser Thr Thr Ile Ser Pro Gly Ile Pro Gly Val Leu Thr
885 890 895

Ser Leu Val Thr Ser Ser Gly Arg Asp Ile Ser Ala Thr Phe Pro Thr
900 905 910

Val Pro Glu Ser Pro His Glu Ser Glu Ala Thr Ala Ser Trp Val Thr
915 920 925

His Pro Ala Val Thr Ser Thr Thr Val Pro Arg Thr Thr Pro Asn Tyr
930 935 940

Ser His Ser Glu Pro Asp Thr Thr Pro Ser Ile Ala Thr Ser Pro Gly
945 950 955 960

Ala Glu Ala Thr Ser Asp Phe Pro Thr Ile Thr Val Ser Pro Asp Val
965 970 975

Pro Asp Met Val Thr Ser Gln Val Thr Ser Ser Gly Thr Asp Thr Ser
980 985 990

Ile Thr Ile Pro Thr Leu Thr Leu Ser Ser Gly Glu Pro Glu Thr Thr
995 1000 1005

Thr Ser Phe Ile Thr Tyr Ser Glu Thr His Thr Ser Ser Ala Ile
1010 1015 1020

Pro Thr 1025	Leu Pro Val Ser	Pro 1030	Gly Ala Ser Lys Met	Leu Thr Ser 1035
Leu Val 1040	Ile Ser Ser Gly Thr	Asp Ser Thr Thr	Thr Phe Pro Thr 1050	
Leu Thr 1055	Glu Thr Pro Tyr Glu	Pro Glu Thr Thr	Ala Ile Gln Leu 1065	
Ile His 1070	Pro Ala Glu Thr Asn	Thr Met Val Pro Arg	Thr Thr Pro 1080	
Lys Phe 1085	Ser His Ser Lys Ser	Asp Thr Thr Leu Pro	Val Ala Ile 1095	
Thr Ser 1100	Pro Gly Pro Glu Ala	Ser Ser Ala Val Ser	Thr Thr Thr 1110	
Ile Ser 1115	Pro Asp Met Ser Asp	Leu Val Thr Ser Leu	Val Pro Ser 1125	
Ser Gly 1130	Thr Asp Thr Ser Thr	Thr Phe Pro Thr Leu	Ser Glu Thr 1140	
Pro Tyr 1145	Glu Pro Glu Thr Thr	Ala Thr Trp Leu Thr	His Pro Ala 1155	
Glu Thr 1160	Ser Thr Thr Val Ser	Gly Thr Ile Pro Asn	Phe Ser His 1170	
Arg Gly 1175	Ser Asp Thr Ala Pro	Ser Met Val Thr Ser	Pro Gly Val 1185	
Asp Thr 1190	Arg Ser Gly Val Pro	Thr Thr Thr Ile Pro	Pro Ser Ile 1200	
Pro Gly 1205	Val Val Thr Ser Gln	Val Thr Ser Ser Ala	Thr Asp Thr 1215	
Ser Thr 1220	Ala Ile Pro Thr Leu	Thr Pro Ser Pro Gly	Glu Pro Glu 1230	

Thr	Thr	Ala	Ser	Ser	Ala	Thr	His	Pro	Gly	Thr	Gln	Thr	Gly	Phe
1235						1240					1245			
Thr	Val	Pro	Ile	Arg	Thr	Val	Pro	Ser	Ser	Glu	Pro	Asp	Thr	Met
1250						1255					1260			
Ala	Ser	Trp	Val	Thr	His	Pro	Pro	Gln	Thr	Ser	Thr	Pro	Val	Ser
1265						1270					1275			
Arg	Thr	Thr	Ser	Ser	Phe	Ser	His	Ser	Ser	Pro	Asp	Ala	Thr	Pro
1280						1285					1290			
Val	Met	Ala	Thr	Ser	Pro	Arg	Thr	Glu	Ala	Ser	Ser	Ala	Val	Leu
1295						1300					1305			
Thr	Thr	Ile	Ser	Pro	Gly	Ala	Pro	Glu	Met	Val	Thr	Ser	Gln	Ile
1310						1315					1320			
Thr	Ser	Ser	Gly	Ala	Ala	Thr	Ser	Thr	Thr	Val	Pro	Thr	Leu	Thr
1325						1330					1335			
His	Ser	Pro	Gly	Met	Pro	Glu	Thr	Thr	Ala	Leu	Leu	Ser	Thr	His
1340						1345					1350			
Pro	Arg	Thr	Glu	Thr	Ser	Lys	Thr	Phe	Pro	Ala	Ser	Thr	Val	Phe
1355						1360					1365			
Pro	Gln	Val	Ser	Glu	Thr	Thr	Ala	Ser	Leu	Thr	Ile	Arg	Pro	Gly
1370						1375					1380			
Ala	Glu	Thr	Ser	Thr	Ala	Leu	Pro	Thr	Gln	Thr	Thr	Ser	Ser	Leu
1385						1390					1395			
Phe	Thr	Leu	Leu	Val	Thr	Gly	Thr	Ser	Arg	Val	Asp	Leu	Ser	Pro
1400						1405					1410			
Thr	Ala	Ser	Pro	Gly	Val	Ser	Ala	Lys	Thr	Ala	Pro	Leu	Ser	Thr
1415						1420					1425			

His	Pro	Gly	Thr	Glu	Thr	Ser	Thr	Met	Ile	Pro	Thr	Ser	Thr	Leu
1430						1435					1440			
Ser	Leu	Gly	Leu	Leu	Glu	Thr	Thr	Gly	Leu	Leu	Ala	Thr	Ser	Ser
1445						1450					1455			
Ser	Ala	Glu	Thr	Ser	Thr	Ser	Thr	Leu	Thr	Leu	Thr	Val	Ser	Pro
1460						1465					1470			
Ala	Val	Ser	Gly	Leu	Ser	Ser	Ala	Ser	Ile	Thr	Thr	Asp	Lys	Pro
1475						1480					1485			
Gln	Thr	Val	Thr	Ser	Trp	Asn	Thr	Glu	Thr	Ser	Pro	Ser	Val	Thr
1490						1495					1500			
Ser	Val	Gly	Pro	Pro	Glu	Phe	Ser	Arg	Thr	Val	Thr	Gly	Thr	Thr
1505						1510					1515			
Met	Thr	Leu	Ile	Pro	Ser	Glu	Met	Pro	Thr	Pro	Pro	Lys	Thr	Ser
1520						1525					1530			
His	Gly	Glu	Gly	Val	Ser	Pro	Thr	Thr	Ile	Leu	Arg	Thr	Thr	Met
1535						1540					1545			
Val	Glu	Ala	Thr	Asn	Leu	Ala	Thr	Thr	Gly	Ser	Ser	Pro	Thr	Val
1550						1555					1560			
Ala	Lys	Thr	Thr	Thr	Thr	Phe	Asn	Thr	Leu	Ala	Gly	Ser	Leu	Phe
1565						1570					1575			
Thr	Pro	Leu	Thr	Thr	Pro	Gly	Met	Ser	Thr	Leu	Ala	Ser	Glu	Ser
1580						1585					1590			
Val	Thr	Ser	Arg	Thr	Ser	Tyr	Asn	His	Arg	Ser	Trp	Ile	Ser	Thr
1595						1600					1605			
Thr	Ser	Ser	Tyr	Asn	Arg	Arg	Tyr	Trp	Thr	Pro	Ala	Thr	Ser	Thr
1610						1615					1620			
Pro	Val	Thr	Ser	Thr	Phe	Ser	Pro	Gly	Ile	Ser	Thr	Ser	Ser	Ile
1625						1630					1635			

Pro Ser	Ser Thr Ala Ala Thr	Val Pro Phe Met Val	Pro Phe Thr
1640	1645	1650	
Leu Asn	Phe Thr Ile Thr Asn	Leu Gln Tyr Glu Glu	Asp Met Arg
1655	1660	1665	
His Pro	Gly Ser Arg Lys Phe	Asn Ala Thr Glu Arg	Glu Leu Gln
1670	1675	1680	
Gly Leu	Leu Lys Pro Leu Phe	Arg Asn Ser Ser Leu	Glu Tyr Leu
1685	1690	1695	
Tyr Ser	Gly Cys Arg Leu Ala	Ser Leu Arg Pro Glu	Lys Asp Ser
1700	1705	1710	
Ser Ala	Met Ala Val Asp Ala	Ile Cys Thr His Arg	Pro Asp Pro
1715	1720	1725	
Glu Asp	Leu Gly Leu Asp Arg	Glu Arg Leu Tyr Trp	Glu Leu Ser
1730	1735	1740	
Asn Leu	Thr Asn Gly Ile Gln	Glu Leu Gly Pro Tyr	Thr Leu Asp
1745	1750	1755	
Arg Asn	Ser Leu Tyr Val Asn	Gly Phe Thr His Arg	Ser Ser Met
1760	1765	1770	
Pro Thr	Thr Ser Thr Pro Gly	Thr Ser Thr Val Asp	Val Gly Thr
1775	1780	1785	
Ser Gly	Thr Pro Ser Ser Ser	Pro Ser Pro Thr	
1790	1795		

<210> 150

<211> 156

<212> PRT

<213> Homo sapiens

<400> 150

Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys
 35 40 45

Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
 50 55 60

Arg Pro Glu Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr
 65 70 75 80

His Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr
 85 90 95

Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr
 100 105 110

Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Arg Ser
 115 120 125

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala
 130 135 140

Thr Ser Gly Thr Pro Ser Ser Leu Pro Lys Leu Thr
 145 150 155

<210> 151

<211> 507

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (1) .. (507)

<223>

<400>	151																
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Met Arg Gly Ser His His His His His His Gly Ser Met Gly His Thr																	
1	5 10 15																
<hr/>																	
gag cct ggc cct ctg ata cca ttc act ttc aac ttt acc atc acc																	96
Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr																	
	20 25 30																
aac ctg cat tat gag gaa aac atg caa cac cct ggt tcc agg aag ttc																	144
Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe																	
	35 40 45																
aac acc acg gag agg gtt ctg cag ggt ctg ctc aag ccc ttg ttc aag																	192
Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys																	
	50 55 60																
aac acc agt gtt ggc cct ctg tac tct ggc tgc aga ctg acc ttg ctc																	240
Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu																	
65	70 75 80																
aga cct gag aag cat gag gca gcc act gga gtg gac acc atc tgt acc																	288
Arg Pro Glu Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr																	
	85 90 95																
cac cgc gtt gat ccc atc gga cct gga ctg gac aga gag cgg cta tac																	336
His Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr																	
	100 105 110																
tgg gag ctg agc cag ctg acc aac agc atc aca gag ctg gga ccc tac																	384
Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr																	
	115 120 125																
acc ctg gac agg gac agt ctc tat gtc aat ggc ttc aac cct cgg agc																	432
Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Arg Ser																	
	130 135 140																
tct gtg cca acc acc agc act cct ggg acc tcc aca gtg cac ctg gca																	480
Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala																	
145	150 155 160																
acc tct ggg act cca tcc tcc ctg cct																	507
Thr Ser Gly Thr Pro Ser Ser Leu Pro																	
	165																

<210> 152

<211> 169

<212> PRT

<213> Homo sapiens

<400> 152

Met	Arg	Gly	Ser	His	His	His	His	His	His	Gly	Ser	Met	Gly	His	Thr
1				5					10					15	

Glu	Pro	Gly	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Phe	Asn	Phe	Thr	Ile	Thr
			20					25					30		

Asn	Leu	His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser	Arg	Lys	Phe
		35					40					45			

Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys
	50					55					60				

Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu
65					70					75					80

Arg	Pro	Glu	Lys	His	Glu	Ala	Ala	Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr
				85					90					95	

His	Arg	Val	Asp	Pro	Ile	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr
			100					105					110		

Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr
		115					120					125			

Thr	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Asn	Pro	Arg	Ser
	130					135					140				

Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	His	Leu	Ala
145					150					155					160

Thr Ser Gly Thr Pro Ser Ser Leu Pro
165

<210> 153

<211> 507

<212> DNA

<213> Homo sapiens

<400> 153

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aggcagggag gatggagtcc cagaggttgc caggtgcact gtggaggtcc caggagtgct      60
gggtggttggc acagagctcc gagggttgaa gccattgaca tagagactgt ccctgtccag      120
gggtgtagggc cccagctctg tgatgctggt ggtcagctgg ctcagctccc agtatagccg      180
ctctctgtcc agtccaggtc cgatgggatc aacgcggtgg gtacagatgg tgtccactcc      240
agtggctgcc tcatgcttct caggtctgag caaggtcagt ctgcagccag agtacagagg      300
gccaacactg gtgttcttga acaagggtt gagcagaccc tgcagaaccc tctccgtggt      360
gttgaacttc ctggaaccag ggtgttgcat gttttcctca taatgcaggt tggatgatgg      420
aaagttgaaa gtgaatggta tcaggagagg gccaggctct gtgtggccca tggatccgtg      480
atggtgatgg tgatgcgatc ctctcat                                          507
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<210> 154

<211> 9

<212> PRT

<213> Homo sapiens

<400> 154

Arg Leu Tyr Trp Glu Leu Ser Gln Leu
1 5

<210> 155

<211> 9

<212> PRT

<213> Homo sapiens

<400> 155

Thr Leu Asp Arg Asp Ser Leu Tyr Val
1 5

<210> 156

<211> 9

<212> PRT

<213> Homo sapiens

<400> 156

Val Leu Gln Gly Leu Leu Lys Pro Leu
1 5

<210> 157

<211> 9

<212> PRT

<213> Homo sapiens

<400> 157

Gln Leu Thr Asn Ser Ile Thr Glu Leu
1 5

<210> 158

<211> 780

<212> PRT

<213> Homo sapiens

<400> 158

Ala Thr Val Pro Phe Met Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Ala Thr Glu Arg Glu Leu Gln Gly Leu Leu Lys Pro Leu Phe Arg
 35 40 45

Asn Ser Ser Leu Glu Tyr Leu Tyr Ser Gly Cys Arg Leu Ala Ser Leu
 50 55 60

Arg Pro Glu Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr
 65 70 75 80

His Arg Pro Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr
 85 90 95

Trp Glu Leu Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr
 100 105 110

Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser
 115 120 125

Ser Met Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Val Gly
 130 135 140

Thr Ser Gly Thr Pro Ser Ser Ser Pro Ser Pro Thr Ala Ala Gly Pro
 145 150 155 160

Leu Leu Met Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr
 165 170 175

Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe Asn Thr Met Glu
 180 185 190

Ser Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val
 195 200 205

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys
 210 215 220

Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His Arg Leu Asp
 225 230 235 240

Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp Glu Leu Ser
 245 250 255

Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr Leu Asp Arg
 260 265 270

Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Val Ser Thr
 275 280 285

Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Arg Thr Ser Gly Thr
 290 295 300

Pro Ser Ser Leu Ser Ser Pro Thr Ile Met Ala Gly Pro Leu Leu Val
 305 310 315 320

Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Gly Glu Asp
 325 330 335

Met Gly His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu
 340 345 350

Gln Gly Leu Leu Gly Pro Ile Phe Lys Asn Thr Ser Val Gly Pro Leu
 355 360 365

Tyr Ser Gly Cys Arg Leu Thr Ser Leu Arg Ser Glu Lys Asp Gly Ala
 370 375 380

Ala Thr Gly Val Asp Ala Ile Cys Ile His His Leu Asp Pro Lys Ser
 385 390 395 400

Pro Gly Leu Asn Arg Glu Arg Leu Tyr Trp Glu Leu Ser Gln Leu Thr
 405 410 415

Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu
 420 425 430

Tyr Val Asn Gly Phe Thr His Arg Thr Ser Val Pro Thr Ser Ser Thr
 435 440 445

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Phe Ser
 450 455 460

Leu Pro Ser Pro Ala Thr Ala Gly Pro Leu Leu Val Leu Phe Thr Leu
 465 470 475 480

Asn Phe Thr Ile Thr Asn Leu Lys Tyr Glu Glu Asp Met His Arg Pro
 485 490 495

Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Thr Leu Leu
 500 505 510

Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly Cys
 515 520 525

Arg Leu Thr Leu Leu Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val
 530 535 540

Asp Ala Ile Cys Thr His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asp
 545 550 555 560

Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys
 565 570 575

Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 580 585 590

Phe Thr His Trp Ile Pro Val Pro Thr Ser Ser Thr Pro Gly Thr Ser
 595 600 605

Thr Val Asp Leu Gly Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr
 610 615 620

Ala Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 625 630 635 640

Asn Leu Gln Tyr Glu Glu Asp Met His His Pro Gly Ser Arg Lys Phe
645 650 655

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys
660 665 670

Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
675 680 685

Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr
690 695 700

His Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr
705 710 715 720

Trp Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr
725 730 735

Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Gln Thr
740 745 750

Ser Ala Pro Asn Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly
755 760 765

Thr Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr
770 775 780

<210> 159

<211> 780

<212> PRT

<213> Homo sapiens

<400> 159

Ser Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Gly Pro Met Phe Lys
 35 40 45

Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
 50 55 60

Arg Pro Glu Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys Ser
 65 70 75 80

His Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr
 85 90 95

Trp Glu Leu Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr
 100 105 110

Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser
 115 120 125

Ser Val Ala Pro Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly
 130 135 140

Thr Ser Gly Thr Pro Ser Ser Leu Pro Ser Pro Thr Thr Ala Val Pro
 145 150 155 160

Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr
 165 170 175

Gly Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu
 180 185 190

Arg Val Leu Gln Gly Leu Leu Gly Pro Leu Phe Lys Asn Ser Ser Val
 195 200 205

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Ile Ser Leu Arg Ser Glu Lys
 210 215 220

Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His His Leu Asn
 225 230 235 240

Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Gln Leu Ser
245 250 255

Gln Met Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr Leu Asp Arg
260 265 270

Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Gly Leu Thr
275 280 285

Thr Ser Thr Pro Trp Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr
290 295 300

Pro Ser Pro Val Pro Ser Pro Thr Thr Ala Gly Pro Leu Leu Val Pro
305 310 315 320

Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met
325 330 335

His Arg Pro Gly Ser Arg Lys Phe Asn Ala Thr Glu Arg Val Leu Gln
340 345 350

Gly Leu Leu Ser Pro Ile Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr
355 360 365

Ser Gly Cys Arg Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala Ala
370 375 380

Thr Gly Met Asp Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg Pro
385 390 395 400

Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His
405 410 415

Asn Ile Thr Glu Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu Tyr
420 425 430

Val Asn Gly Phe Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr Pro
435 440 445

Gly Thr Ser Thr Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser Phe
450 455 460

Pro Gly His Thr Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn
 465 470 475 480

Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly
 485 490 495

Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys
 500 505 510

Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
 515 520 525

Leu Thr Ser Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Met Asp
 530 535 540

Ala Val Cys Leu Tyr His Pro Asn Pro Lys Arg Pro Gly Leu Asp Arg
 545 550 555 560

Glu Gln Leu Tyr Cys Glu Leu Ser Gln Leu Thr His Asn Ile Thr Glu
 565 570 575

Leu Gly Pro Tyr Ser Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe
 580 585 590

Thr His Gln Asn Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr
 595 600 605

Val Tyr Trp Ala Thr Thr Gly Thr Pro Ser Ser Phe Pro Gly His Thr
 610 615 620

Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr
 625 630 635 640

Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 645 650 655

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys
 660 665 670

Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
 675 680 685

Arg Pro Glu Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr
 690 695 700

His Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr
 705 710 715 720

Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr
 725 730 735

Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Arg Ser
 740 745 750

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala
 755 760 765

Thr Ser Gly Thr Pro Ser Ser Leu Pro Gly His Thr
 770 775 780

<210> 160

<211> 624

<212> PRT

<213> Homo sapiens

<400> 160

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Arg Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Thr Pro Leu Phe Lys
 35 40 45

Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
 50 55 60

Arg Pro Glu Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr
65 70 75 80

His Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr
85 90 95

Trp Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr
100 105 110

Thr Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Asn Pro Trp Ser
115 120 125

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val His Leu Ala
130 135 140

Thr Ser Gly Thr Pro Ser Ser Leu Pro Gly His Thr Ala Pro Val Pro
145 150 155 160

Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr Asp Leu His Tyr
165 170 175

Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu
180 185 190

Arg Val Leu Gln Gly Leu Leu Lys Pro Leu Phe Lys Ser Thr Ser Val
195 200 205

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys
210 215 220

His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu Arg Leu Asp
225 230 235 240

Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser
245 250 255

Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg
260 265 270

250

Asp Ser Leu Tyr Val Asn Gly Phe Thr His Arg Ser Ser Val Pro Thr
 275 280 285

Thr Ser Ile Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly Thr
 290 295 300

Pro Ala Ser Leu Pro Gly His Thr Ala Pro Gly Pro Leu Leu Val Pro
 305 310 315 320

Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu Gln Tyr Glu Glu Asp Met
 325 330 335

Arg His Pro Gly Ser Arg Lys Phe Ser Thr Thr Glu Arg Val Leu Gln
 340 345 350

Gly Leu Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr
 355 360 365

Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Ala Ala
 370 375 380

Thr Arg Val Asp Ala Val Cys Thr His Arg Pro Asp Pro Lys Ser Pro
 385 390 395 400

Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr His
 405 410 415

Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Leu Tyr
 420 425 430

Val Asn Gly Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr Pro
 435 440 445

Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser Leu
 450 455 460

Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn
 465 470 475 480

Phe Thr Ile Thr Asn Gln Arg Tyr Glu Glu Asn Met His His Pro Gly
 485 490 495

Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Arg
500 505 510

Pro Val Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg
515 520 525

Leu Thr Leu Leu Arg Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp
530 535 540

Ala Ile Cys Thr Tyr Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg
545 550 555 560

Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu
565 570 575

Leu Gly Pro Tyr Thr Gln Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe
580 585 590

Thr His Arg Ser Ser Val Pro Thr Thr Ser Ile Pro Gly Thr Ser Ala
595 600 605

Val	His	Leu	Glu	Thr	Ser	Gly	Thr	Pro	Ala	Ser	Leu	Pro	Gly	His	Thr
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<210> 161

<211> 4 68

<212> PRT

<213> Homo sapiens

<400> 161

Ala Thr Gly Pro Val Leu Leu Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Met Pro Leu Phe Lys
 35 40 45

Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu
 50 55 60

Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Val Cys Thr
 65 70 75 80

His Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr
 85 90 95

Trp Lys Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr
 100 105 110

Thr Leu Asp Arg His Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser
 115 120 125

Ser Met Thr Thr Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala
 130 135 140

Thr Ser Arg Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro
 145 150 155 160

Leu Leu Val Leu Phe Thr Ile Asn Phe Thr Ile Thr Asn Leu Arg Tyr
 165 170 175

Glu Glu Asn Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu
 180 185 190

Arg Val Leu Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser Val
 195 200 205

Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Lys Lys
 210 215 220

Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr Arg Pro Asp
 225 230 235 240

Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser
 245 250 255

Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr Gln Asp Arg
 260 265 270

Asp Ser Leu Tyr Asn Val Gly Phe Thr Gln Arg Ser Ser Val Pro Thr
 275 280 285

Thr Ser Val Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly Thr
 290 295 300

Pro Val Ser Lys Pro Gly Pro Ser Ala Ala Ser Pro Leu Leu Val Leu
 305 310 315 320

Phe Thr Leu Asn Gly Thr Ile Thr Asn Leu Arg Tyr Glu Glu Asn Met
 325 330 335

Gln His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln
 340 345 350

Gly Leu Leu Arg Ser Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr
 355 360 365

Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro Glu Lys Asp Gly Thr Ala
 370 375 380

Thr Gly Val Asp Ala Ile Cys Thr His His Pro Asp Pro Lys Ser Pro
 385 390 395 400

Arg Leu Asp Arg Glu Gln Leu Tyr Trp Glu Leu Ser Gln Leu Thr His
 405 410 415

Asn Ile Thr Glu Leu Gly His Tyr Ala Leu Asp Asn Asp Ser Leu Phe
 420 425 430

Val Asn Gly Phe Thr His Arg Ser Ser Val Ser Thr Thr Ser Thr Pro
 435 440 445

Gly Thr Pro Thr Val Tyr Leu Gly Ala Ser Lys Thr Pro Ala Ser Ile
 450 455 460

Phe Gly Pro Ser
465

<210> 162

<211> 11721

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(11721)

<223> Any "X" = any amino acid

<400> 162

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Ile	Arg	Pro	Val	Lys	Gly	Pro	Gln	Thr	Ser	Thr	Ser	Pro	Ala	Ser	Pro
			20				25						30		

Lys	Gly	Leu	His	Thr	Gly	Gly	Thr	Lys	Arg	Met	Glu	Thr	Thr	Thr	Thr
		35					40					45			

Ala	Leu	Lys	Thr	Thr	Thr	Thr	Ala	Leu	Lys	Thr	Thr	Ser	Arg	Ala	Thr
	50					55					60				

Leu	Thr	Thr	Ser	Val	Tyr	Thr	Pro	Thr	Leu	Gly	Thr	Leu	Thr	Pro	Leu
65					70					75					80

Asn	Ala	Ser	Arg	Gln	Met	Ala	Ser	Thr	Ile	Leu	Thr	Glu	Met	Met	Ile
				85					90					95	

Thr	Thr	Pro	Tyr	Val	Phe	Pro	Asp	Val	Pro	Glu	Thr	Thr	Ser	Ser	Leu
			100					105						110	

255

Ala Thr Ser Leu Gly Ala Glu Thr Ser Thr Ala Leu Pro Arg Thr Thr
 115 120 125

Pro Ser Val Leu Asn Arg Glu Ser Glu Thr Thr Ala Ser Leu Val Ser
 130 135 140

Arg Ser Gly Ala Glu Arg Ser Pro Val Ile Gln Thr Leu Asp Val Ser
 145 150 155 160

Ser Ser Glu Pro Asp Thr Thr Ala Ser Trp Val Ile His Pro Ala Glu
 165 170 175

Thr Ile Pro Thr Val Ser Lys Thr Thr Pro Asn Phe Phe His Ser Glu
 180 185 190

Leu Asp Thr Val Ser Ser Thr Ala Thr Ser His Gly Ala Asp Val Ser
 195 200 205

Ser Ala Ile Pro Thr Asn Ile Ser Pro Ser Glu Leu Asp Ala Leu Thr
 210 215 220

Pro Leu Val Thr Ile Ser Gly Thr Asp Thr Ser Thr Thr Phe Pro Thr
 225 230 235 240

Leu Thr Lys Ser Pro His Glu Thr Glu Thr Arg Thr Thr Trp Leu Thr
 245 250 255

His Pro Ala Glu Thr Ser Ser Thr Ile Pro Arg Thr Ile Pro Asn Phe
 260 265 270

Ser His His Glu Ser Asp Ala Thr Pro Ser Ile Ala Thr Ser Pro Gly
 275 280 285

Ala Glu Thr Ser Ser Ala Ile Pro Ile Met Thr Val Ser Pro Gly Ala
 290 295 300

Glu Asp Leu Val Thr Ser Gln Val Thr Ser Ser Gly Thr Asp Arg Asn
 305 310 315 320

Met Thr Ile Pro Thr Leu Thr Leu Ser Pro Gly Glu Pro Lys Thr Ile
 325 330 335

Ala Ser Leu Val Thr His Pro Glu Ala Gln Thr Ser Ser Ala Ile Pro
 340 345 350

Thr Ser Thr Ile Ser Pro Ala Val Ser Arg Leu Val Thr Ser Met Val
 355 360 365

Thr Ser Leu Ala Ala Lys Thr Ser Thr Thr Asn Arg Ala Leu Thr Asn
 370 375 380

Ser Pro Gly Glu Pro Ala Thr Thr Val Ser Leu Val Thr His Pro Ala
 385 390 395 400

Gln Thr Ser Pro Thr Val Pro Trp Thr Thr Ser Ile Phe Phe His Ser
 405 410 415

Lys Ser Asp Thr Thr Pro Ser Met Thr Thr Ser His Gly Ala Glu Ser
 420 425 430

Ser Ser Ala Val Pro Thr Pro Thr Val Ser Thr Glu Val Pro Gly Val
 435 440 445

Val Thr Pro Leu Val Thr Ser Ser Arg Ala Val Ile Ser Thr Thr Ile
 450 455 460

Pro Ile Leu Thr Leu Ser Pro Gly Glu Pro Glu Thr Thr Pro Ser Met
 465 470 475 480

Ala Thr Ser His Gly Glu Glu Ala Ser Ser Ala Ile Pro Thr Pro Thr
 485 490 495

Val Ser Pro Gly Val Pro Gly Val Val Thr Ser Leu Val Thr Ser Ser
 500 505 510

Arg Ala Val Thr Ser Thr Thr Ile Pro Ile Leu Thr Phe Ser Leu Gly
 515 520 525

Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His Gly Thr Glu Ala
 530 535 540

Gly Ser Ala Val Pro Thr Val Leu Pro Glu Val Pro Gly Met Val Thr
 545 550 555 560

Ser Leu Val Ala Ser Ser Arg Ala Val Thr Ser Thr Thr Leu Pro Thr
 565 570 575

Leu Thr Leu Ser Pro Gly Glu Pro Glu Thr Thr Pro Ser Met Ala Thr
 580 585 590

Ser His Gly Ala Glu Ala Ser Ser Thr Val Pro Thr Val Ser Pro Glu
 595 600 605

Val Pro Gly Val Val Thr Ser Leu Val Thr Ser Ser Ser Gly Val Asn
 610 615 620

Ser Thr Ser Ile Pro Thr Leu Ile Leu Ser Pro Gly Glu Leu Glu Thr
 625 630 635 640

Thr Pro Ser Met Ala Thr Ser His Gly Ala Glu Ala Ser Ser Ala Val
 645 650 655

Pro Thr Pro Thr Val Ser Pro Gly Val Ser Gly Val Val Thr Pro Leu
 660 665 670

Val Thr Ser Ser Arg Ala Val Thr Ser Thr Thr Ile Pro Ile Leu Thr
 675 680 685

Leu Ser Ser Ser Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His
 690 695 700

Gly Val Glu Ala Ser Ser Ala Val Leu Thr Val Ser Pro Glu Val Pro
 705 710 715 720

Gly Met Val Thr Ser Leu Val Thr Ser Ser Arg Ala Val Thr Ser Thr
 725 730 735

Thr Ile Pro Thr Leu Thr Ile Ser Ser Asp Glu Pro Glu Thr Thr Thr
 740 745 750

Ser Leu Val Thr His Ser Glu Ala Lys Met Ile Ser Ala Ile Pro Thr
 755 760 765

Leu Ala Val Ser Pro Thr Val Gln Gly Leu Val Thr Ser Leu Val Thr
 770 775 780

Ser Ser Gly Ser Glu Thr Ser Ala Phe Ser Asn Leu Thr Val Ala Ser
 785 790 795 800

Ser Gln Pro Glu Thr Ile Asp Ser Trp Val Ala His Pro Gly Thr Glu
 805 810 815

Ala Ser Ser Val Val Pro Thr Leu Thr Val Ser Thr Gly Glu Pro Phe
 820 825 830

Thr Asn Ile Ser Leu Val Thr His Pro Ala Glu Ser Ser Ser Thr Leu
 835 840 845

Pro Arg Thr Thr Ser Arg Phe Ser His Ser Glu Leu Asp Thr Met Pro
 850 855 860

Ser Thr Val Thr Ser Pro Glu Ala Glu Ser Ser Ser Ala Ile Ser Thr
 865 870 875 880

Thr Ile Ser Pro Gly Ile Pro Gly Val Leu Thr Ser Leu Val Thr Ser
 885 890 895

Ser Gly Arg Asp Ile Ser Ala Thr Phe Pro Thr Val Pro Glu Ser Pro
 900 905 910

His Glu Ser Glu Ala Thr Ala Ser Trp Val Thr His Pro Ala Val Thr
 915 920 925

Ser Thr Thr Val Pro Arg Thr Thr Pro Asn Tyr Ser His Ser Glu Pro
 930 935 940

Asp Thr Thr Pro Ser Ile Ala Thr Ser Pro Gly Ala Glu Ala Thr Ser
 945 950 955 960

Asp Phe Pro Thr Ile Thr Val Ser Pro Asp Val Pro Asp Met Val Thr
 965 970 975

Ser Gln Val Thr Ser Ser Gly Thr Asp Thr Ser Ile Thr Ile Pro Thr
 980 985 990

Leu Thr Leu Ser Ser Gly Glu Pro Glu Thr Thr Thr Ser Phe Ile Thr
 995 1000 1005

Tyr Ser Glu Thr His Thr Ser Ser Ala Ile Pro Thr Leu Pro Val
 1010 1015 1020

Ser Pro Gly Ala Ser Lys Met Leu Thr Ser Leu Val Ile Ser Ser
 1025 1030 1035

Gly Thr Asp Ser Thr Thr Thr Phe Pro Thr Leu Thr Glu Thr Pro
 1040 1045 1050

Tyr Glu Pro Glu Thr Thr Ala Ile Gln Leu Ile His Pro Ala Glu
 1055 1060 1065

Thr Asn Thr Met Val Pro Arg Thr Thr Pro Lys Phe Ser His Ser
 1070 1075 1080

Lys Ser Asp Thr Thr Leu Pro Val Ala Ile Thr Ser Pro Gly Pro
 1085 1090 1095

Glu Ala Ser Ser Ala Val Ser Thr Thr Thr Ile Ser Pro Asp Met
 1100 1105 1110

Ser Asp Leu Val Thr Ser Leu Val Pro Ser Ser Gly Thr Asp Thr
 1115 1120 1125

Ser Thr Thr Phe Pro Thr Leu Ser Glu Thr Pro Tyr Glu Pro Glu
 1130 1135 1140

Thr Thr Ala Thr Trp Leu Thr His Pro Ala Glu Thr Ser Thr Thr
 1145 1150 1155

Val Ser Gly Thr Ile Pro Asn Phe Ser His Arg Gly Ser Asp Thr
 1160 1165 1170

Ala Pro Ser Met Val Thr Ser Pro Gly Val Asp Thr Arg Ser Gly
 1175 1180 1185

Val	Pro	Thr	Thr	Thr	Ile	Pro	Pro	Ser	Ile	Pro	Gly	Val	Val	Thr
1190						1195					1200			
Ser	Gln	Val	Thr	Ser	Ser	Ala	Thr	Asp	Thr	Ser	Thr	Ala	Ile	Pro
1205						1210					1215			
Thr	Leu	Thr	Pro	Ser	Pro	Gly	Glu	Pro	Glu	Thr	Thr	Ala	Ser	Ser
1220						1225					1230			
Ala	Thr	His	Pro	Gly	Thr	Gln	Thr	Gly	Phe	Thr	Val	Pro	Ile	Arg
1235						1240					1245			
Thr	Val	Pro	Ser	Ser	Glu	Pro	Asp	Thr	Met	Ala	Ser	Trp	Val	Thr
1250						1255					1260			
His	Pro	Pro	Gln	Thr	Ser	Thr	Pro	Val	Ser	Arg	Thr	Thr	Ser	Ser
1265						1270					1275			
Phe	Ser	His	Ser	Ser	Pro	Asp	Ala	Thr	Pro	Val	Met	Ala	Thr	Ser
1280						1285					1290			
Pro	Arg	Thr	Glu	Ala	Ser	Ser	Ala	Val	Leu	Thr	Thr	Ile	Ser	Pro
1295						1300					1305			
Gly	Ala	Pro	Glu	Met	Val	Thr	Ser	Gln	Ile	Thr	Ser	Ser	Gly	Ala
1310						1315					1320			
Ala	Thr	Ser	Thr	Thr	Val	Pro	Thr	Leu	Thr	His	Ser	Pro	Gly	Met
1325						1330					1335			
Pro	Glu	Thr	Thr	Ala	Leu	Leu	Ser	Thr	His	Pro	Arg	Thr	Glu	Thr
1340						1345					1350			
Ser	Lys	Thr	Phe	Pro	Ala	Ser	Thr	Val	Phe	Pro	Gln	Val	Ser	Glu
1355						1360					1365			
Thr	Thr	Ala	Ser	Leu	Thr	Ile	Arg	Pro	Gly	Ala	Glu	Thr	Ser	Thr
1370						1375					1380			

Ala	Leu	Pro	Thr	Gln	Thr	Thr	Ser	Ser	Leu	Phe	Thr	Leu	Leu	Val
1385						1390					1395			
Thr	Gly	Thr	Ser	Arg	Val	Asp	Leu	Ser	Pro	Thr	Ala	Ser	Pro	Gly
1400						1405					1410			
Val	Ser	Ala	Lys	Thr	Ala	Pro	Leu	Ser	Thr	His	Pro	Gly	Thr	Glu
1415						1420					1425			
Thr	Ser	Thr	Met	Ile	Pro	Thr	Ser	Thr	Leu	Ser	Leu	Gly	Leu	Leu
1430						1435					1440			
Glu	Thr	Thr	Gly	Leu	Leu	Ala	Thr	Ser	Ser	Ser	Ala	Glu	Thr	Ser
1445						1450					1455			
Thr	Ser	Thr	Leu	Thr	Leu	Thr	Val	Ser	Pro	Ala	Val	Ser	Gly	Leu
1460						1465					1470			
Ser	Ser	Ala	Ser	Ile	Thr	Thr	Asp	Lys	Pro	Gln	Thr	Val	Thr	Ser
1475						1480					1485			
Trp	Asn	Thr	Glu	Thr	Ser	Pro	Ser	Val	Thr	Ser	Val	Gly	Pro	Pro
1490						1495					1500			
Glu	Phe	Ser	Arg	Thr	Val	Thr	Gly	Thr	Thr	Met	Thr	Leu	Ile	Pro
1505						1510					1515			
Ser	Glu	Met	Pro	Thr	Pro	Pro	Lys	Thr	Ser	His	Gly	Glu	Gly	Val
1520						1525					1530			
Ser	Pro	Thr	Thr	Ile	Leu	Arg	Thr	Thr	Met	Val	Glu	Ala	Thr	Asn
1535						1540					1545			
Leu	Ala	Thr	Thr	Gly	Ser	Ser	Pro	Thr	Val	Ala	Lys	Thr	Thr	Thr
1550						1555					1560			
Thr	Phe	Asn	Thr	Leu	Ala	Gly	Ser	Leu	Phe	Thr	Pro	Leu	Thr	Thr
1565						1570					1575			
Pro	Gly	Met	Ser	Thr	Leu	Ala	Ser	Glu	Ser	Val	Thr	Ser	Arg	Thr
1580						1585					1590			

Ser	Tyr	Asn	His	Arg	Ser	Trp	Ile	Ser	Thr	Thr	Ser	Ser	Tyr	Asn
1595						1600					1605			
Arg	Arg	Tyr	Trp	Thr	Pro	Ala	Thr	Ser	Thr	Pro	Val	Thr	Ser	Thr
1610						1615					1620			
Phe	Ser	Pro	Gly	Ile	Ser	Thr	Ser	Ser	Ile	Pro	Ser	Ser	Thr	Ala
1625						1630					1635			
Ala	Thr	Val	Pro	Phe	Met	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile
1640						1645					1650			
Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	Arg	His	Pro	Gly	Ser	Arg
1655						1660					1665			
Lys	Phe	Asn	Ala	Thr	Glu	Arg	Glu	Leu	Gln	Gly	Leu	Leu	Lys	Pro
1670						1675					1680			
Leu	Phe	Arg	Asn	Ser	Ser	Leu	Glu	Tyr	Leu	Tyr	Ser	Gly	Cys	Arg
1685						1690					1695			
Leu	Ala	Ser	Leu	Arg	Pro	Glu	Lys	Asp	Ser	Ser	Ala	Met	Ala	Val
1700						1705					1710			
Asp	Ala	Ile	Cys	Thr	His	Arg	Pro	Asp	Pro	Glu	Asp	Leu	Gly	Leu
1715						1720					1725			
Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Asn	Leu	Thr	Asn	Gly
1730						1735					1740			
Ile	Gln	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr
1745						1750					1755			
Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Met	Pro	Thr	Thr	Ser	Thr
1760						1765					1770			
Pro	Gly	Thr	Ser	Thr	Val	Asp	Val	Gly	Thr	Ser	Gly	Thr	Pro	Ser
1775						1780					1785			

Ser	Ser	Pro	Ser	Pro	Thr	Ala	Ala	Gly	Pro	Leu	Leu	Met	Pro	Phe
1790						1795					1800			
Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met
1805						1810					1815			
Arg	Arg	Thr	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Met	Glu	Ser	Val	Leu
1820						1825					1830			
Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro
1835						1840					1845			
Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asp
1850						1855					1860			
Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp
1865						1870					1875			
Pro	Lys	Ser	Pro	Gly	Leu	Asn	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu
1880						1885					1890			
Ser	Lys	Leu	Thr	Asn	Asp	Ile	Glu	Glu	Leu	Gly	Pro	Tyr	Thr	Leu
1895						1900					1905			
Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Ser	Ser
1910						1915					1920			
Val	Ser	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Arg
1925						1930					1935			
Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Ser	Ser	Pro	Thr	Ile	Met	Ala
1940						1945					1950			
Ala	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr
1955						1960					1965			
Asn	Leu	Gln	Tyr	Gly	Glu	Asp	Met	Gly	His	Pro	Gly	Ser	Arg	Lys
1970						1975					1980			
Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Ile
1985						1990					1995			

Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu
2000						2005					2010			
Thr	Ser	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp
2015						2020					2025			
Ala	Ile	Cys	Ile	His	His	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asn
2030						2035					2040			
Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Gly	Ile
2045						2050					2055			
Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val
2060						2065					2070			
Asn	Gly	Phe	Thr	His	Arg	Thr	Ser	Val	Pro	Thr	Ser	Ser	Thr	Pro
2075						2080					2085			
Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Phe	Ser
2090						2095					2100			
Leu	Pro	Ser	Pro	Ala	Thr	Ala	Gly	Pro	Leu	Leu	Val	Leu	Phe	Thr
2105						2110					2115			
Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Lys	Tyr	Glu	Glu	Asp	Met	His
2120						2125					2130			
Arg	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln
2135						2140					2145			
Thr	Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu
2150						2155					2160			
Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Ser	Glu	Lys	Asp	Gly
2165						2170					2175			
Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro
2180						2185					2190			

Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser
2195						2200					2205			
Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp
2210						2215					2220			
Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Trp	Ile	Pro	Val
2225						2230					2235			
Pro	Thr	Ser	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Ser
2240						2245					2250			
Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser	Pro	Thr	Ala	Ala	Gly	Pro	Leu
2255						2260					2265			
Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr
2270						2275					2280			
Glu	Glu	Asp	Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr
2285						2290					2295			
Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn	Thr
2300						2305					2310			
Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg
2315						2320					2325			
Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr
2330						2335					2340			
His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Val	Asp	Arg	Glu	Gln	Leu
2345						2350					2355			
Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu	Gly
2360						2365					2370			
Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
2375						2380					2385			
His	Gln	Thr	Ser	Ala	Pro	Asn	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
2390						2395					2400			

Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser	Pro
2405						2410					2415			
Thr	Ser	Ala	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr
2420						2425					2430			
Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	Arg	His	Pro	Gly	Ser
2435						2440					2445			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys
2450						2455					2460			
Pro	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys
2465						2470					2475			
Arg	Leu	Thr	Leu	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly
2480						2485					2490			
Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly
2495						2500					2505			
Val	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn
2510						2515					2520			
Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu
2525						2530					2535			
Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Thr	Ser	Ala	Pro	Asn	Thr	Ser
2540						2545					2550			
Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro
2555						2560					2565			
Ser	Ser	Leu	Pro	Ser	Pro	Thr	Ser	Ala	Gly	Pro	Leu	Leu	Val	Pro
2570						2575					2580			
Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp
2585						2590					2595			

Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val
2600						2605					2610			
Leu	Gln	Gly	Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn	Thr	Ser	Val	Gly
2615						2620					2625			
Leu	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys
2630						2635					2640			
Asn	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala	Ile	Cys	Ser	His	Arg	Leu
2645						2650					2655			
Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asn	Arg	Glu	Gln	Leu	Tyr	Trp	Glu
2660						2665					2670			
Leu	Ser	Gln	Leu	Thr	His	Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr
2675						2680					2685			
Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser
2690						2695					2700			
Ser	Val	Ala	Pro	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu
2705						2710					2715			
Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser	Pro	Thr	Thr	Ala
2720						2725					2730			
Val	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
2735						2740					2745			
Leu	Gln	Tyr	Gly	Glu	Asp	Met	Arg	His	Pro	Gly	Ser	Arg	Lys	Phe
2750						2755					2760			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Leu	Phe
2765						2770					2775			
Lys	Asn	Ser	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Ile
2780						2785					2790			
Ser	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala
2795						2800					2805			

Ile Cys	Thr His His Leu Asn	Pro Gln Ser Pro Gly	Leu Asp Arg
2810	2815	2820	
Glu Gln	Leu Tyr Trp Gln Leu	Ser Gln Met Thr Asn	Gly Ile Lys
2825	2830	2835	
Glu Leu	Gly Pro Tyr Thr Leu	Asp Arg Asn Ser Leu	Tyr Val Asn
2840	2845	2850	
Gly Phe	Thr His Arg Ser Ser	Gly Leu Thr Thr Ser	Thr Pro Trp
2855	2860	2865	
Thr Ser	Thr Val Asp Leu Gly	Thr Ser Gly Thr Pro	Ser Pro Val
2870	2875	2880	
Pro Ser	Pro Thr Thr Ala Gly	Pro Leu Leu Val Pro	Phe Thr Leu
2885	2890	2895	
Asn Phe	Thr Ile Thr Asn Leu	Gln Tyr Glu Glu Asp	Met His Arg
2900	2905	2910	
Pro Gly	Ser Arg Lys Phe Asn	Ala Thr Glu Arg Val	Leu Gln Gly
2915	2920	2925	
Leu Leu	Ser Pro Ile Phe Lys	Asn Ser Ser Val Gly	Pro Leu Tyr
2930	2935	2940	
Ser Gly	Cys Arg Leu Thr Ser	Leu Arg Pro Glu Lys	Asp Gly Ala
2945	2950	2955	
Ala Thr	Gly Met Asp Ala Val	Cys Leu Tyr His Pro	Asn Pro Lys
2960	2965	2970	
Arg Pro	Gly Leu Asp Arg Glu	Gln Leu Tyr Trp Glu	Leu Ser Gln
2975	2980	2985	
Leu Thr	His Asn Ile Thr Glu	Leu Gly Pro Tyr Ser	Leu Asp Arg
2990	2995	3000	

Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Asn	Ser	Val	Pro
3005						3010					3015			
Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Tyr	Trp	Ala	Thr	Thr
3020						3025					3030			
Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His	Thr	Glu	Pro	Gly	Pro	Leu
3035						3040					3045			
Leu	Ile	Pro	Phe	Thr	Phe	Asn	Phe	Thr	Ile	Thr	Asn	Leu	His	Tyr
3050						3055					3060			
Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr
3065						3070					3075			
Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr
3080						3085					3090			
Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Ser	Leu	Arg
3095						3100					3105			
Pro	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala	Val	Cys	Leu
3110						3115					3120			
Tyr	His	Pro	Asn	Pro	Lys	Arg	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu
3125						3130					3135			
Tyr	Cys	Glu	Leu	Ser	Gln	Leu	Thr	His	Asn	Ile	Thr	Glu	Leu	Gly
3140						3145					3150			
Pro	Tyr	Ser	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
3155						3160					3165			
His	Gln	Asn	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
3170						3175					3180			
Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His
3185						3190					3195			
Thr	Glu	Pro	Gly	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Phe	Asn	Phe	Thr
3200						3205					3210			

Ile Thr	Asn Leu His Tyr	Glu	Glu Asn Met Gln His	Pro Gly Ser
3215		3220		3225
Arg Lys	Phe Asn Thr Thr	Glu	Arg Val Leu Gln Gly	Leu Leu Lys
3230		3235		3240
Pro Leu	Phe Lys Asn Thr	Ser	Val Gly Pro Leu Tyr	Ser Gly Cys
3245		3250		3255
Arg Leu	Thr Leu Leu Arg	Pro	Glu Lys His Glu Ala	Ala Thr Gly
3260		3265		3270
Val Asp	Thr Ile Cys Thr	His	Arg Val Asp Pro Ile	Gly Pro Gly
3275		3280		3285
Leu Asp	Arg Glu Arg Leu	Tyr	Trp Glu Leu Ser Gln	Leu Thr Asn
3290		3295		3300
Ser Ile	Thr Glu Leu Gly	Pro	Tyr Thr Leu Asp Arg	Asp Ser Leu
3305		3310		3315
Tyr Val	Asn Gly Phe Asn	Pro	Arg Ser Ser Val Pro	Thr Thr Ser
3320		3325		3330
Thr Pro	Gly Thr Ser Thr	Val	His Leu Ala Thr Ser	Gly Thr Pro
3335		3340		3345
Ser Ser	Leu Pro Gly His	Thr	Ala Pro Val Pro Leu	Leu Ile Pro
3350		3355		3360
Phe Thr	Leu Asn Phe Thr	Ile	Thr Asn Leu His Tyr	Glu Glu Asn
3365		3370		3375
Met Gln	His Pro Gly Ser	Arg	Lys Phe Asn Thr Thr	Glu Arg Val
3380		3385		3390
Leu Gln	Gly Leu Leu Lys	Pro	Leu Phe Lys Asn Thr	Ser Val Gly
3395		3400		3405

Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys
3410						3415					3420			
His	Glu	Ala	Ala	Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val
3425						3430					3435			
Asp	Pro	Ile	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu
3440						3445					3450			
Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa
3455						3460					3465			
Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa
3470						3475					3480			
Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu
3485						3490					3495			
Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Ser	Ala
3500						3505					3510			
Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
3515						3520					3525			
Leu	Gln	Tyr	Glu	Glu	Asp	Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe
3530						3535					3540			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Met	Phe
3545						3550					3555			
Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
3560						3565					3570			
Leu	Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala
3575						3580					3585			
Ile	Cys	Ser	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg
3590						3595					3600			
Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	His	Gly	Ile	Lys
3605						3610					3615			

Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn
3620						3625					3630			
Gly	Phe	Thr	His	Arg	Ser	Ser	Val	Ala	Pro	Thr	Ser	Thr	Pro	Gly
3635						3640					3645			
Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu
3650						3655					3660			
Pro	Ser	Pro	Thr	Thr	Ala	Val	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu
3665						3670					3675			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Gly	Glu	Asp	Met	Arg	His
3680						3685					3690			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
3695						3700					3705			
Leu	Leu	Gly	Pro	Leu	Phe	Lys	Asn	Ser	Ser	Val	Gly	Pro	Leu	Tyr
3710						3715					3720			
Ser	Gly	Cys	Arg	Leu	Ile	Ser	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala
3725						3730					3735			
Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Thr	His	His	Leu	Asn	Pro	Gln
3740						3745					3750			
Ser	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Gln	Leu	Ser	Gln
3755						3760					3765			
Met	Thr	Asn	Gly	Ile	Lys	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg
3770						3775					3780			
Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Gly	Leu
3785						3790					3795			
Thr	Thr	Ser	Thr	Pro	Trp	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser
3800						3805					3810			

Gly Thr	Pro Ser Pro Val	Pro	Ser Pro Thr Thr	Ala	Gly Pro Leu
3815		3820		3825	
Leu Val	Pro Phe Thr Leu	Asn	Phe Thr Ile Thr	Asn	Leu Gln Tyr
3830		3835		3840	
Glu Glu	Asp Met His Arg	Pro	Gly Ser Arg Lys	Phe	Asn Ala Thr
3845		3850		3855	
Glu Arg	Val Leu Gln Gly	Leu	Leu Ser Pro Ile	Phe	Lys Asn Ser
3860		3865		3870	
Ser Val	Gly Pro Leu Tyr	Ser	Gly Cys Arg Leu	Thr	Ser Leu Arg
3875		3880		3885	
Pro Glu	Lys Asp Gly Ala	Ala	Thr Gly Met Asp	Ala	Val Cys Leu
3890		3895		3900	
Tyr His	Pro Asn Pro Lys	Arg	Pro Gly Leu Asp	Arg	Glu Gln Leu
3905		3910		3915	
Tyr Trp	Glu Leu Ser Gln	Leu	Thr His Asn Ile	Thr	Glu Leu Gly
3920		3925		3930	
Pro Tyr	Ser Leu Asp Arg	Asp	Ser Leu Tyr Val	Asn	Gly Phe Thr
3935		3940		3945	
His Gln	Ser Ser Met Thr	Thr	Thr Arg Thr Pro	Asp	Thr Ser Thr
3950		3955		3960	
Met His	Leu Ala Thr Ser	Arg	Thr Pro Ala Ser	Leu	Ser Gly Pro
3965		3970		3975	
Thr Thr	Ala Ser Pro Leu	Leu	Val Leu Phe Thr	Ile	Asn Cys Thr
3980		3985		3990	
Ile Thr	Asn Leu Gln Tyr	Glu	Glu Asp Met Arg	Arg	Thr Gly Ser
3995		4000		4005	
Arg Lys	Phe Asn Thr Met	Glu	Ser Val Leu Gln	Gly	Leu Leu Lys
4010		4015		4020	

Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys
4025						4030					4035			
Arg	Leu	Thr	Leu	Leu	Arg	Pro	Lys	Lys	Asp	Gly	Ala	Ala	Thr	Gly
4040						4045					4050			
Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly
4055						4060					4065			
Leu	Asn	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Lys	Leu	Thr	Asn
4070						4075					4080			
Asp	Ile	Glu	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu
4085						4090					4095			
Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Ser	Ser	Val	Ser	Thr	Thr	Ser
4100						4105					4110			
Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Arg	Thr	Ser	Gly	Thr	Pro
4115						4120					4125			
Ser	Ser	Leu	Ser	Ser	Pro	Thr	Ile	Met	Xaa	Xaa	Xaa	Pro	Leu	Leu
4130						4135					4140			
Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu
4145						4150					4155			
Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu
4160						4165					4170			
Arg	Val	Leu	Gln	Gly	Leu	Leu	Arg	Pro	Leu	Phe	Lys	Asn	Thr	Ser
4175						4180					4185			
Val	Ser	Ser	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro
4190						4195					4200			
Glu	Lys	Asp	Gly	Ala	Ala	Thr	Arg	Val	Asp	Ala	Ala	Cys	Thr	Tyr
4205						4210					4215			

Arg	Pro	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu	Tyr
4220						4225					4230			
Trp	Glu	Leu	Ser	Gln	Leu	Thr	His	Ser	Ile	Thr	Glu	Leu	Gly	Pro
4235						4240					4245			
Tyr	Thr	Leu	Asp	Arg	Val	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Asn	Pro
4250						4255					4260			
Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val
4265						4270					4275			
His	Leu	Ala	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Gly	His	Thr
4280						4285					4290			
Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile
4295						4300					4305			
Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser	Arg
4310						4315					4320			
Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro
4325						4330					4335			
Leu	Phe	Arg	Asn	Ser	Ser	Leu	Glu	Tyr	Leu	Tyr	Ser	Gly	Cys	Arg
4340						4345					4350			
Leu	Ala	Ser	Leu	Arg	Pro	Glu	Lys	Asp	Ser	Ser	Ala	Met	Ala	Val
4355						4360					4365			
Asp	Ala	Ile	Cys	Thr	His	Arg	Pro	Asp	Pro	Glu	Asp	Leu	Gly	Leu
4370						4375					4380			
Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Asn	Leu	Thr	Asn	Gly
4385						4390					4395			
Ile	Gln	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr
4400						4405					4410			
Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Phe	Leu	Thr	Thr	Ser	Thr
4415						4420					4425			

Pro Trp	Thr Ser Thr Val	Asp	Leu Gly Thr Ser	Gly	Thr Pro Ser
4430		4435		4440	
Pro Val	Pro Ser Pro Thr	Thr	Ala Gly Pro Leu	Leu	Val Pro Phe
4445		4450		4455	
Thr Leu	Asn Phe Thr Ile	Thr	Asn Leu Gln Tyr	Glu	Glu Asp Met
4460		4465		4470	
His Arg	Pro Gly Ser Arg	Arg	Phe Asn Thr Thr	Glu	Arg Val Leu
4475		4480		4485	
Gln Gly	Leu Leu Thr Pro	Leu	Phe Lys Asn Thr	Ser	Val Gly Pro
4490		4495		4500	
Leu Tyr	Ser Gly Cys Arg	Leu	Thr Leu Leu Arg	Pro	Glu Lys Gln
4505		4510		4515	
Glu Ala	Ala Thr Gly Val	Asp	Thr Ile Cys Thr	His	Arg Val Asp
4520		4525		4530	
Pro Ile	Gly Pro Gly Leu	Asp	Arg Glu Arg Leu	Tyr	Trp Glu Leu
4535		4540		4545	
Ser Gln	Leu Thr Asn Ser	Ile	Thr Glu Leu Gly	Pro	Tyr Thr Leu
4550		4555		4560	
Asp Arg	Asp Ser Leu Tyr	Val	Asn Gly Phe Asn	Pro	Trp Ser Ser
4565		4570		4575	
Val Pro	Thr Thr Ser Thr	Pro	Gly Thr Ser Thr	Val	His Leu Ala
4580		4585		4590	
Thr Ser	Gly Thr Pro Ser	Ser	Leu Pro Gly His	Thr	Ala Pro Val
4595		4600		4605	
Pro Leu	Leu Ile Pro Phe	Thr	Leu Asn Phe Thr	Ile	Thr Asp Leu
4610		4615		4620	

His Tyr	Glu Glu Asn Met Gln	His Pro Gly Ser Arg	Lys Phe Asn
4625	4630	4635	
Thr Thr	Glu Arg Val Leu Gln	Gly Leu Leu Lys Pro	Leu Phe Lys
4640	4645	4650	
Ser Thr	Ser Val Gly Pro Leu	Tyr Ser Gly Cys Arg	Leu Thr Leu
4655	4660	4665	
Leu Arg	Pro Glu Lys His Gly	Ala Ala Thr Gly Val	Asp Ala Ile
4670	4675	4680	
Cys Thr	Leu Arg Leu Asp Pro	Thr Gly Pro Gly Leu	Asp Arg Glu
4685	4690	4695	
Arg Leu	Tyr Trp Glu Leu Ser	Gln Leu Thr Asn Ser	Val Thr Glu
4700	4705	4710	
Leu Gly	Pro Tyr Thr Leu Asp	Arg Asp Ser Leu Tyr	Val Asn Gly
4715	4720	4725	
Phe Thr	His Arg Ser Ser Val	Pro Thr Thr Ser Ile	Pro Gly Thr
4730	4735	4740	
Ser Ala	Val His Leu Glu Thr	Ser Gly Thr Pro Ala	Ser Leu Pro
4745	4750	4755	
Gly His	Thr Ala Pro Gly Pro	Leu Leu Val Pro Phe	Thr Leu Asn
4760	4765	4770	
Phe Thr	Ile Thr Asn Leu Gln	Tyr Glu Glu Asp Met	Arg His Pro
4775	4780	4785	
Gly Ser	Arg Lys Phe Ser Thr	Thr Glu Arg Val Leu	Gln Gly Leu
4790	4795	4800	
Leu Lys	Pro Leu Phe Lys Asn	Thr Ser Val Ser Ser	Leu Tyr Ser
4805	4810	4815	
Gly Cys	Arg Leu Thr Leu Leu	Arg Pro Glu Lys Asp	Gly Ala Ala
4820	4825	4830	

Thr Arg Val Asp Ala Val Cys Thr His Arg Pro Asp Pro Lys Ser
4835 4840 4845

Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp Lys Leu Ser Gln Leu
4850 4855 4860

Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr Leu Asp Arg His
4865 4870 4875

Ser Leu Tyr Val Asn Gly Phe Thr His Gln Ser Ser Met Thr Thr
4880 4885 4890

Thr Arg Thr Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg
4895 4900 4905

Thr Pro Ala Ser Leu Ser Gly Pro Thr Thr Ala Ser Pro Leu Leu
4910 4915 4920

Val Leu Phe Thr Ile Asn Phe Thr Ile Thr Asn Gln Arg Tyr Glu
4925 4930 4935

Glu Asn Met His His Pro Gly Ser Arg Lys Phe Asn Thr Thr Glu
4940 4945 4950

Arg Val Leu Gln Gly Leu Leu Arg Pro Val Phe Lys Asn Thr Ser
4955 4960 4965

Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Leu Leu Arg Pro
4970 4975 4980

Lys Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr
4985 4990 4995

Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr
5000 5005 5010

Trp Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro
5015 5020 5025

Tyr	Thr	Gln	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His
5030						5035					5040			
Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile	Pro	Gly	Thr	Ser	Ala	Val
5045						5050					5055			
His	Leu	Glu	Thr	Ser	Gly	Thr	Pro	Ala	Ser	Leu	Pro	Gly	His	Thr
5060						5065					5070			
Ala	Pro	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile
5075						5080					5085			
Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	Arg	His	Pro	Gly	Ser	Arg
5090						5095					5100			
Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro
5105						5110					5115			
Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg
5120						5125					5130			
Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Arg	Gly	Ala	Ala	Thr	Gly	Val
5135						5140					5145			
Asp	Thr	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Leu	Asn	Pro	Gly	Leu
5150						5155					5160			
Asp	Arg	Glu	Gln	Leu	Tyr	Trp	Glu	Leu	Ser	Lys	Leu	Thr	Arg	Gly
5165						5170					5175			
Ile	Ile	Glu	Leu	Gly	Pro	Tyr	Leu	Leu	Asp	Arg	Gly	Ser	Leu	Tyr
5180						5185					5190			
Val	Asn	Gly	Phe	Thr	His	Arg	Thr	Ser	Val	Pro	Thr	Thr	Ser	Thr
5195						5200					5205			
Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Phe
5210						5215					5220			
Ser	Leu	Pro	Ser	Pro	Ala	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe
5225						5230					5235			

Thr Leu	Asn Phe Thr Ile Thr	Asn Leu Xaa Tyr Glu	Glu Xaa Met
5240	5245	5250	
Xaa Xaa	Pro Gly Ser Arg Lys	Phe Asn Thr Thr Glu	Arg Val Leu
5255	5260	5265	
Gln Thr	Leu Leu Gly Pro Met	Phe Lys Asn Thr Ser	Val Gly Leu
5270	5275	5280	
Leu Tyr	Ser Gly Cys Arg Leu	Thr Leu Leu Arg Ser	Glu Lys Asp
5285	5290	5295	
Gly Ala	Ala Thr Gly Val Asp	Ala Ile Cys Thr His	Arg Leu Asp
5300	5305	5310	
Pro Lys	Ser Pro Gly Val Asp	Arg Glu Gln Leu Tyr	Trp Glu Leu
5315	5320	5325	
Ser Gln	Leu Thr Asn Gly Ile	Lys Glu Leu Gly Pro	Tyr Thr Leu
5330	5335	5340	
Asp Arg	Asn Ser Leu Tyr Val	Asn Gly Phe Thr His	Trp Ile Pro
5345	5350	5355	
Val Pro	Thr Ser Ser Thr Pro	Gly Thr Ser Thr Val	Asp Leu Gly
5360	5365	5370	
Ser Gly	Thr Pro Ser Leu Pro	Ser Ser Pro Thr Thr	Ala Gly Pro
5375	5380	5385	
Leu Leu	Val Pro Phe Thr Leu	Asn Phe Thr Ile Thr	Asn Leu Lys
5390	5395	5400	
Tyr Glu	Glu Asp Met His Cys	Pro Gly Ser Arg Lys	Phe Asn Thr
5405	5410	5415	
Thr Glu	Arg Val Leu Gln Ser	Leu Leu Gly Pro Met	Phe Lys Asn
5420	5425	5430	

Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu
5435						5440					5445			
Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys
5450						5455					5460			
Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Val	Asp	Arg	Glu	Gln
5465						5470					5475			
Leu	Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu
5480						5485					5490			
Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe
5495						5500					5505			
Thr	His	Gln	Thr	Ser	Ala	Pro	Asn	Thr	Ser	Thr	Pro	Gly	Thr	Ser
5510						5515					5520			
Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser
5525						5530					5535			
Pro	Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe
5540						5545					5550			
Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly
5555						5560					5565			
Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu
5570						5575					5580			
Xaa	Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly
5585						5590					5595			
Cys	Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr
5600						5605					5610			
Xaa	Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro
5615						5620					5625			
Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr
5630						5635					5640			

Xaa Xaa	Ile Xaa Glu Leu Gly	Pro Tyr Xaa Leu Asp	Arg Xaa Ser
5645	5650	5655	
Leu Tyr	Val Asn Gly Phe Thr	His Trp Ile Pro Val	Pro Thr Ser
5660	5665	5670	
Ser Thr	Pro Gly Thr Ser Thr	Val Asp Leu Gly Ser	Gly Thr Pro
5675	5680	5685	
Ser Ser	Leu Pro Ser Pro Thr	Thr Ala Gly Pro Leu	Leu Val Pro
5690	5695	5700	
Phe Thr	Leu Asn Phe Thr Ile	Thr Asn Leu Lys Tyr	Glu Glu Asp
5705	5710	5715	
Met His	Cys Pro Gly Ser Arg	Lys Phe Asn Thr Thr	Glu Arg Val
5720	5725	5730	
Leu Gln	Ser Leu Leu Gly Pro	Met Phe Lys Asn Thr	Ser Val Gly
5735	5740	5745	
Pro Leu	Tyr Ser Gly Cys Arg	Leu Thr Ser Leu Arg	Ser Glu Lys
5750	5755	5760	
Asp Gly	Ala Ala Thr Gly Val	Asp Ala Ile Cys Thr	His Arg Val
5765	5770	5775	
Asp Pro	Lys Ser Pro Gly Val	Asp Arg Glu Gln Leu	Tyr Trp Glu
5780	5785	5790	
Leu Ser	Gln Leu Thr Asn Gly	Ile Lys Glu Leu Gly	Pro Tyr Thr
5795	5800	5805	
Leu Asp	Arg Asn Ser Leu Tyr	Val Asn Gly Phe Thr	His Gln Thr
5810	5815	5820	
Ser Ala	Pro Asn Thr Ser Thr	Pro Gly Thr Ser Thr	Val Asp Leu
5825	5830	5835	

Gly	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser	Pro	Thr	Ser	Ala
5840						5845					5850			
Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
5855						5860					5865			
Leu	Gln	Tyr	Glu	Glu	Asp	Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe
5870						5875					5880			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Met	Phe
5885						5890					5895			
Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
5900						5905					5910			
Leu	Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala
5915						5920					5925			
Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg
5930						5935					5940			
Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa
5945						5950					5955			
Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn
5960						5965					5970			
Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly
5975						5980					5985			
Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa
5990						5995					6000			
Pro	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu
6005						6010					6015			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa
6020						6025					6030			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
6035						6040					6045			

Leu	Leu	Lys	Pro	Leu	Phe	Arg	Asn	Ser	Ser	Leu	Glu	Tyr	Leu	Tyr
6050						6055					6060			
Ser	Gly	Cys	Arg	Leu	Ala	Ser	Leu	Arg	Pro	Glu	Lys	Asp	Ser	Ser
6065						6070					6075			
Ala	Met	Ala	Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Pro	Asp	Pro	Glu
6080						6085					6090			
Asp	Leu	Gly	Leu	Asp	Arg	Glu	Arg	Leu	Tyr	Trp	Glu	Leu	Ser	Asn
6095						6100					6105			
Leu	Thr	Asn	Gly	Ile	Gln	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg
6110						6115					6120			
Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Met	Pro
6125						6130					6135			
Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Val	Gly	Thr	Ser
6140						6145					6150			
Gly	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu
6155						6160					6165			
Leu	Ile	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr
6170						6175					6180			
Gly	Glu	Asp	Met	Gly	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr
6185						6190					6195			
Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Ile	Phe	Lys	Asn	Thr
6200						6205					6210			
Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Ser	Leu	Arg
6215						6220					6225			
Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala	Ile	Cys	Ile
6230						6235					6240			

His	His	Leu	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asn	Arg	Glu	Arg	Leu
	6245					6250					6255			
Tyr	Trp	Glu	Leu	Ser	Gln	Leu	Thr	Asn	Gly	Ile	Lys	Glu	Leu	Gly
	6260					6265					6270			
Pro	Tyr	Thr	Leu	Asp	Arg	Asn	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
	6275					6280					6285			
His	Arg	Thr	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
	6290					6295					6300			
Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Phe	Ser	Leu	Pro	Ser	Pro
	6305					6310					6315			
Ala	Thr	Ala	Gly	Pro	Leu	Leu	Val	Leu	Phe	Thr	Leu	Asn	Phe	Thr
	6320					6325					6330			
Ile	Thr	Asn	Leu	Lys	Tyr	Glu	Glu	Asp	Met	His	Arg	Pro	Gly	Ser
	6335					6340					6345			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Thr	Leu	Leu	Gly
	6350					6355					6360			
Pro	Met	Phe	Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly	Cys
	6365					6370					6375			
Arg	Leu	Thr	Leu	Leu	Arg	Ser	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly
	6380					6385					6390			
Val	Asp	Ala	Ile	Cys	Thr	His	Arg	Leu	Asp	Pro	Lys	Ser	Pro	Gly
	6395					6400					6405			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa
	6410					6415					6420			
Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu
	6425					6430					6435			
Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser
	6440					6445					6450			

Thr 6455	Pro	Gly	Thr	Ser	Xaa	Val 6460	Xaa	Leu	Xaa	Thr	Ser 6465	Gly	Thr	Pro
Xaa 6470	Xaa	Xaa	Pro	Xaa	Xaa	Thr 6475	Xaa	Xaa	Xaa	Pro	Leu 6480	Leu	Xaa	Pro
Phe 6485	Thr	Leu	Asn	Phe	Thr	Ile 6490	Thr	Asn	Leu	Xaa	Tyr 6495	Glu	Glu	Xaa
Met 6500	Xaa	Xaa	Pro	Gly	Ser	Arg 6505	Lys	Phe	Asn	Thr	Thr 6510	Glu	Arg	Val
Leu 6515	Gln	Gly	Leu	Leu	Arg	Pro 6520	Val	Phe	Lys	Asn	Thr 6525	Ser	Val	Gly
Pro 6530	Leu	Tyr	Ser	Gly	Cys	Arg 6535	Leu	Thr	Leu	Leu	Arg 6540	Pro	Lys	Lys
Asp 6545	Gly	Ala	Ala	Thr	Lys	Val 6550	Asp	Ala	Ile	Cys	Thr 6555	Tyr	Arg	Pro
Asp 6560	Pro	Lys	Ser	Pro	Gly	Leu 6565	Asp	Arg	Glu	Gln	Leu 6570	Tyr	Trp	Glu
Leu 6575	Ser	Gln	Leu	Thr	His	Ser 6580	Ile	Thr	Glu	Leu	Gly 6585	Pro	Tyr	Thr
Gln 6590	Asp	Arg	Asp	Ser	Leu	Tyr 6595	Val	Asn	Gly	Phe	Thr 6600	His	Arg	Ser
Ser 6605	Val	Pro	Thr	Thr	Ser	Ile 6610	Pro	Gly	Thr	Ser	Ala 6615	Val	His	Leu
Glu 6620	Thr	Thr	Gly	Thr	Pro	Ser 6625	Ser	Phe	Pro	Gly	His 6630	Thr	Glu	Pro
Gly 6635	Pro	Leu	Leu	Ile	Pro	Phe 6640	Thr	Phe	Asn	Phe	Thr 6645	Ile	Thr	Asn

Leu Arg 6650	Tyr Glu Glu Asn Met 6655	Gln His Pro Gly Ser 6660	Arg Lys Phe
Asn Thr 6665	Thr Glu Arg Val Leu 6670	Gln Gly Leu Leu Thr 6675	Pro Leu Phe
Lys Asn 6680	Thr Ser Val Gly Pro 6685	Leu Tyr Ser Gly Cys 6690	Arg Leu Thr
Leu Leu 6695	Arg Pro Glu Lys Gln 6700	Glu Ala Ala Thr Gly 6705	Val Asp Thr
Ile Cys 6710	Thr His Arg Val Asp 6715	Pro Ile Gly Pro Gly 6720	Leu Asp Arg
Glu Arg 6725	Leu Tyr Trp Glu Leu 6730	Ser Gln Leu Thr Asn 6735	Ser Ile Thr
Glu Leu 6740	Gly Pro Tyr Thr Leu 6745	Asp Arg Asp Ser Leu 6750	Tyr Val Asp
Gly Phe 6755	Asn Pro Trp Ser Ser 6760	Val Pro Thr Thr Ser 6765	Thr Pro Gly
Thr Ser 6770	Thr Val His Leu Ala 6775	Thr Ser Gly Thr Pro 6780	Ser Pro Leu
Pro Gly 6785	His Thr Ala Pro Val 6790	Pro Leu Leu Ile Pro 6795	Phe Thr Leu
Asn Phe 6800	Thr Ile Thr Asp Leu 6805	His Tyr Glu Glu Asn 6810	Met Gln His
Pro Gly 6815	Ser Arg Lys Phe Asn 6820	Thr Thr Glu Arg Val 6825	Leu Gln Gly
Leu Leu 6830	Lys Pro Leu Phe Lys 6835	Ser Thr Ser Val Gly 6840	Pro Leu Tyr
Ser Gly 6845	Cys Arg Leu Thr Leu 6850	Leu Arg Pro Glu Lys 6855	His Gly Ala

Ala Thr	Gly Val Asp Ala Ile	Cys Thr Leu Arg Leu	Asp Pro Thr
6860	6865	6870	
Gly Pro	Gly Leu Asp Arg Glu	Arg Leu Tyr Trp Glu	Leu Ser Gln
6875	6880	6885	
Leu Thr	Asn Ser Ile Thr Glu	Leu Gly Pro Tyr Thr	Leu Asp Arg
6890	6895	6900	
Asp Ser	Leu Tyr Val Asn Gly	Phe Asn Pro Trp Ser	Ser Val Pro
6905	6910	6915	
Thr Thr	Ser Thr Pro Gly Thr	Ser Thr Val His Leu	Ala Thr Ser
6920	6925	6930	
Gly Thr	Pro Ser Ser Leu Pro	Gly His Thr Thr Ala	Gly Pro Leu
6935	6940	6945	
Leu Val	Pro Phe Thr Leu Asn	Phe Thr Ile Thr Asn	Leu Lys Tyr
6950	6955	6960	
Glu Glu	Asp Met His Cys Pro	Gly Ser Arg Lys Phe	Asn Thr Thr
6965	6970	6975	
Glu Arg	Val Leu Gln Ser Leu	His Gly Pro Met Phe	Lys Asn Thr
6980	6985	6990	
Ser Val	Gly Pro Leu Tyr Ser	Gly Cys Arg Leu Thr	Leu Leu Arg
6995	7000	7005	
Ser Glu	Lys Asp Gly Ala Ala	Thr Gly Val Asp Ala	Ile Cys Thr
7010	7015	7020	
His Arg	Leu Asp Pro Lys Ser	Pro Gly Leu Asp Arg	Glu Xaa Leu
7025	7030	7035	
Tyr Trp	Glu Leu Ser Xaa Leu	Thr Xaa Xaa Ile Xaa	Glu Leu Gly
7040	7045	7050	

Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa
7055						7060					7065			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa
7070						7075					7080			
Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa
7085						7090					7095			
Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr
7100						7105					7110			
Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser
7115						7120					7125			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa
7130						7135					7140			
Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys
7145						7150					7155			
Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa
7160						7165					7170			
Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly
7175						7180					7185			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Asn
7190						7195					7200			
Ser	Ile	Thr	Glu	Leu	Gly	Pro	Tyr	Thr	Leu	Asp	Arg	Asp	Ser	Leu
7205						7210					7215			
Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Met	Pro	Thr	Thr	Ser
7220						7225					7230			
Ile	Pro	Gly	Thr	Ser	Ala	Val	His	Leu	Glu	Thr	Ser	Gly	Thr	Pro
7235						7240					7245			
Ala	Ser	Leu	Pro	Gly	His	Thr	Ala	Pro	Gly	Pro	Leu	Leu	Val	Pro
7250						7255					7260			

Phe Thr	Leu Asn Phe Thr	Ile	Thr Asn Leu Gln Tyr	Glu Glu Asp
7265		7270		7275
Met Arg	His Pro Gly Ser	Arg	Lys Phe Asn Thr Thr	Glu Arg Val
7280		7285		7290
Leu Gln	Gly Leu Leu Lys	Pro	Leu Phe Lys Ser Thr	Ser Val Gly
7295		7300		7305
Pro Leu	Tyr Ser Gly Cys	Arg	Leu Thr Leu Leu Arg	Pro Glu Lys
7310		7315		7320
Arg Gly	Ala Ala Thr Gly	Val	Asp Thr Ile Cys Thr	His Arg Leu
7325		7330		7335
Asp Pro	Leu Asn Pro Gly	Leu	Asp Arg Glu Xaa Leu	Tyr Trp Glu
7340		7345		7350
Leu Ser	Xaa Leu Thr Xaa	Xaa	Ile Xaa Glu Leu Gly	Pro Tyr Xaa
7355		7360		7365
Leu Asp	Arg Xaa Ser Leu	Tyr	Val Asn Gly Phe Xaa	Xaa Xaa Xaa
7370		7375		7380
Xaa Xaa	Xaa Xaa Thr Ser	Thr	Pro Gly Thr Ser Xaa	Val Xaa Leu
7385		7390		7395
Xaa Thr	Ser Gly Thr Pro	Xaa	Xaa Xaa Pro Xaa Xaa	Thr Xaa Xaa
7400		7405		7410
Xaa Pro	Leu Leu Xaa Pro	Phe	Thr Leu Asn Phe Thr	Ile Thr Asn
7415		7420		7425
Leu Xaa	Tyr Glu Glu Xaa	Met	Xaa Xaa Pro Gly Ser	Arg Lys Phe
7430		7435		7440
Asn Thr	Thr Glu Arg Val	Leu	Gln Gly Leu Leu Xaa	Pro Xaa Phe
7445		7450		7455

Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
7460						7465					7470			
Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa	Val	Asp	Xaa
7475						7480					7485			
Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly	Leu	Asp	Arg
7490						7495					7500			
Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa
7505						7510					7515			
Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn
7520						7525					7530			
Gly	Phe	His	Pro	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly
7535						7540					7545			
Thr	Ser	Thr	Val	His	Leu	Ala	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu
7550						7555					7560			
Pro	Gly	His	Thr	Ala	Pro	Val	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Leu
7565						7570					7575			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	His	Tyr	Glu	Glu	Asn	Met	Gln	His
7580						7585					7590			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
7595						7600					7605			
Leu	Leu	Gly	Pro	Met	Phe	Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr
7610						7615					7620			
Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala
7625						7630					7635			
Ala	Thr	Gly	Met	Asp	Ala	Ile	Cys	Ser	His	Arg	Leu	Asp	Pro	Lys
7640						7645					7650			
Ser	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa
7655						7660					7665			

Leu Thr 7670	Xaa Xaa Ile Xaa Glu 7675	Leu Gly Pro Tyr Xaa 7680	Leu Asp Arg
Xaa Ser 7685	Leu Tyr Val Asn Gly 7690	Phe Xaa Xaa Xaa Xaa 7695	Xaa Xaa Xaa
Xaa Thr 7700	Ser Thr Pro Gly Thr 7705	Ser Xaa Val Xaa Leu 7710	Xaa Thr Ser
Gly Thr 7715	Pro Xaa Xaa Xaa Pro 7720	Xaa Xaa Thr Xaa Xaa 7725	Xaa Pro Leu
Leu Xaa 7730	Pro Phe Thr Leu Asn 7735	Phe Thr Ile Thr Asn 7740	Leu Xaa Tyr
Glu Glu 7745	Xaa Met Xaa Xaa Pro 7750	Gly Ser Arg Lys Phe 7755	Asn Thr Thr
Glu Arg 7760	Val Leu Gln Gly Leu 7765	Leu Xaa Pro Xaa Phe 7770	Lys Xaa Thr
Ser Val 7775	Gly Xaa Leu Tyr Ser 7780	Gly Cys Arg Leu Thr 7785	Leu Leu Arg
Xaa Glu 7790	Lys Xaa Xaa Ala Ala 7795	Thr Xaa Val Asp Xaa 7800	Xaa Cys Xaa
Xaa Xaa 7805	Xaa Asp Pro Xaa Xaa 7810	Pro Gly Leu Asp Arg 7815	Glu Xaa Leu
Tyr Trp 7820	Glu Leu Ser Xaa Leu 7825	Thr Xaa Xaa Ile Xaa 7830	Glu Leu Gly
Pro Tyr 7835	Xaa Leu Asp Arg Xaa 7840	Ser Leu Tyr Val Asn 7845	Gly Phe Thr
His Gln 7850	Asn Ser Val Pro Thr 7855	Thr Ser Thr Pro Gly 7860	Thr Ser Thr

Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His
7865						7870					7875			
Thr	Glu	Pro	Gly	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Phe	Asn	Phe	Thr
7880						7885					7890			
Ile	Thr	Asn	Leu	His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser
7895						7900					7905			
Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Thr
7910						7915					7920			
Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys
7925						7930					7935			
Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Gln	Glu	Ala	Ala	Thr	Gly
7940						7945					7950			
Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val	Asp	Pro	Ile	Gly	Pro	Gly
7955						7960					7965			
Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa
7970						7975					7980			
Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu
7985						7990					7995			
Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser
8000						8005					8010			
Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser	Gly	Thr	Pro
8015						8020					8025			
Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro
8030						8035					8040			
Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Xaa	Tyr	Glu	Glu	Xaa
8045						8050					8055			
Met	Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val
8060						8065					8070			

Leu	Gln	Gly	Leu	Leu	Xaa	Pro	Xaa	Phe	Lys	Xaa	Thr	Ser	Val	Gly
8075						8080					8085			
Xaa	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Xaa	Glu	Lys
8090						8095					8100			
Xaa	Xaa	Ala	Ala	Thr	Xaa	Val	Asp	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa
8105						8110					8115			
Asp	Pro	Xaa	Xaa	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu
8120						8125					8130			
Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa
8135						8140					8145			
Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Arg	Ser
8150						8155					8160			
Ser	Val	Pro	Thr	Thr	Ser	Ser	Pro	Gly	Thr	Ser	Thr	Val	His	Leu
8165						8170					8175			
Ala	Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Gly	His	Thr	Ala	Pro
8180						8185					8190			
Val	Pro	Leu	Leu	Ile	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
8195						8200					8205			
Leu	His	Tyr	Glu	Glu	Asn	Met	Gln	His	Pro	Gly	Ser	Arg	Lys	Phe
8210						8215					8220			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Lys	Pro	Leu	Phe
8225						8230					8235			
Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
8240						8245					8250			
Leu	Leu	Arg	Pro	Glu	Lys	His	Gly	Ala	Ala	Thr	Gly	Val	Asp	Ala
8255						8260					8265			

Ile Cys Thr Leu Arg Leu Asp	Pro Thr Gly Pro Gly	Leu Asp Arg
8270	8275	8280
Glu Xaa Leu Tyr Trp Glu Leu	Ser Xaa Leu Thr Xaa	Xaa Ile Xaa
8285	8290	8295
Glu Leu Gly Pro Tyr Xaa Leu	Asp Arg Xaa Ser Leu	Tyr Val Asn
8300	8305	8310
Gly Phe Xaa Xaa Xaa Xaa Xaa	Xaa Xaa Xaa Thr Ser	Thr Pro Gly
8315	8320	8325
Thr Ser Xaa Val Xaa Leu Xaa	Thr Ser Gly Thr Pro	Xaa Xaa Xaa
8330	8335	8340
Pro Xaa Xaa Thr Xaa Xaa Xaa	Pro Leu Leu Xaa Pro	Phe Thr Leu
8345	8350	8355
Asn Phe Thr Ile Thr Asn Leu	Xaa Tyr Glu Glu Xaa	Met Xaa Xaa
8360	8365	8370
Pro Gly Ser Arg Lys Phe Asn	Thr Thr Glu Arg Val	Leu Gln Gly
8375	8380	8385
Leu Leu Xaa Pro Xaa Phe Lys	Xaa Thr Ser Val Gly	Xaa Leu Tyr
8390	8395	8400
Ser Gly Cys Arg Leu Thr Leu	Leu Arg Xaa Glu Lys	Xaa Xaa Ala
8405	8410	8415
Ala Thr Xaa Val Asp Xaa Xaa	Cys Xaa Xaa Xaa Xaa	Asp Pro Xaa
8420	8425	8430
Xaa Pro Gly Leu Asp Arg Glu	Xaa Leu Tyr Trp Glu	Leu Ser Xaa
8435	8440	8445
Leu Thr Xaa Xaa Ile Xaa Glu	Leu Gly Pro Tyr Xaa	Leu Asp Arg
8450	8455	8460
Xaa Ser Leu Tyr Val Asn Gly	Phe Thr His Arg Thr	Ser Val Pro
8465	8470	8475

Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	His	Leu	Ala	Thr	Ser
8480						8485					8490			
Gly	Thr	Pro	Ser	Ser	Leu	Pro	Gly	His	Thr	Ala	Pro	Val	Pro	Leu
8495						8500					8505			
Leu	Ile	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr
8510						8515					8520			
Glu	Glu	Asp	Met	His	Arg	Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr
8525						8530					8535			
Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Ser	Pro	Ile	Phe	Lys	Asn	Ser
8540						8545					8550			
Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Ser	Leu	Arg
8555						8560					8565			
Pro	Glu	Lys	Asp	Gly	Ala	Ala	Thr	Gly	Met	Asp	Ala	Val	Cys	Leu
8570						8575					8580			
Tyr	His	Pro	Asn	Pro	Lys	Arg	Pro	Gly	Leu	Asp	Arg	Glu	Gln	Leu
8585						8590					8595			
Tyr	Cys	Glu	Leu	Ser	Gln	Leu	Thr	His	Asn	Ile	Thr	Glu	Leu	Gly
8600						8605					8610			
Pro	Tyr	Ser	Leu	Asp	Arg	Asp	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr
8615						8620					8625			
His	Gln	Asn	Ser	Val	Pro	Thr	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr
8630						8635					8640			
Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser	Phe	Pro	Gly	His
8645						8650					8655			
Thr	Xaa	Xaa	Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr
8660						8665					8670			

Ile Thr	Asn Leu Xaa Tyr	Glu	Glu Xaa Met Xaa Xaa	Pro Gly Ser
8675		8680		8685
Arg Lys	Phe Asn Thr Thr	Glu	Arg Val Leu Gln Gly	Leu Leu Xaa
8690		8695		8700
Pro Xaa	Phe Lys Xaa Thr	Ser	Val Gly Xaa Leu Tyr	Ser Gly Cys
8705		8710		8715
Arg Leu	Thr Leu Leu Arg	Xaa	Glu Lys Xaa Xaa Ala	Ala Thr Xaa
8720		8725		8730
Val Asp	Xaa Xaa Cys Xaa	Xaa	Xaa Xaa Asp Pro Xaa	Xaa Pro Gly
8735		8740		8745
Leu Asp	Arg Glu Xaa Leu	Tyr	Trp Glu Leu Ser Xaa	Leu Thr Xaa
8750		8755		8760
Xaa Ile	Xaa Glu Leu Gly	Pro	Tyr Xaa Leu Asp Arg	Xaa Ser Leu
8765		8770		8775
Tyr Val	Asn Gly Phe Thr	His	Trp Ser Ser Gly Leu	Thr Thr Ser
8780		8785		8790
Thr Pro	Trp Thr Ser Thr	Val	Asp Leu Gly Thr Ser	Gly Thr Pro
8795		8800		8805
Ser Pro	Val Pro Ser Pro	Thr	Thr Ala Gly Pro Leu	Leu Val Pro
8810		8815		8820
Phe Thr	Leu Asn Phe Thr	Ile	Thr Asn Leu Gln Tyr	Glu Glu Asp
8825		8830		8835
Met His	Arg Pro Gly Ser	Arg	Lys Phe Asn Ala Thr	Glu Arg Val
8840		8845		8850
Leu Gln	Gly Leu Leu Ser	Pro	Ile Phe Lys Asn Thr	Ser Val Gly
8855		8860		8865
Pro Leu	Tyr Ser Gly Cys	Arg	Leu Thr Leu Leu Arg	Pro Glu Lys
8870		8875		8880

Gln	Glu	Ala	Ala	Thr	Gly	Val	Asp	Thr	Ile	Cys	Thr	His	Arg	Val
8885						8890					8895			
Asp	Pro	Ile	Gly	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu
8900						8905					8910			
Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa
8915						8920					8925			
Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa
8930						8935					8940			
Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu
8945						8950					8955			
Xaa	Thr	Ser	Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Xaa	Xaa
8960						8965					8970			
Xaa	Pro	Leu	Leu	Xaa	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn
8975						8980					8985			
Leu	Xaa	Tyr	Glu	Glu	Xaa	Met	Xaa	Xaa	Pro	Gly	Ser	Arg	Lys	Phe
8990						8995					9000			
Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Xaa	Pro	Xaa	Phe
9005						9010					9015			
Lys	Xaa	Thr	Ser	Val	Gly	Xaa	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr
9020						9025					9030			
Leu	Leu	Arg	Xaa	Glu	Lys	Xaa	Xaa	Ala	Ala	Thr	Xaa	Val	Asp	Xaa
9035						9040					9045			
Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Asp	Pro	Xaa	Xaa	Pro	Gly	Leu	Asp	Arg
9050						9055					9060			
Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa
9065						9070					9075			

Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn
	9080					9085					9090			
Gly	Phe	Thr	His	Arg	Ser	Phe	Gly	Leu	Thr	Thr	Ser	Thr	Pro	Trp
	9095					9100					9105			
Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Pro	Val
	9110					9115					9120			
Pro	Ser	Pro	Thr	Thr	Ala	Gly	Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu
	9125					9130					9135			
Asn	Phe	Thr	Ile	Thr	Asn	Leu	Gln	Tyr	Glu	Glu	Asp	Met	His	Arg
	9140					9145					9150			
Pro	Gly	Ser	Arg	Lys	Phe	Asn	Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly
	9155					9160					9165			
Leu	Leu	Thr	Pro	Leu	Phe	Arg	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr
	9170					9175					9180			
Ser	Gly	Cys	Arg	Leu	Thr	Leu	Leu	Arg	Pro	Glu	Lys	Asp	Gly	Ala
	9185					9190					9195			
Ala	Thr	Arg	Val	Asp	Ala	Val	Cys	Thr	His	Arg	Pro	Asp	Pro	Lys
	9200					9205					9210			
Ser	Pro	Gly	Leu	Asp	Arg	Glu	Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa
	9215					9220					9225			
Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg
	9230					9235					9240			
Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	9245					9250					9255			
Xaa	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Xaa	Val	Xaa	Leu	Xaa	Thr	Ser
	9260					9265					9270			
Gly	Thr	Pro	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Thr	Xaa	Xaa	Xaa	Pro	Leu
	9275					9280					9285			

Leu Xaa	Pro Phe Thr	Leu Asn	Phe Thr Ile Thr	Asn	Leu Xaa Tyr
9290		9295		9300	
Glu Glu	Xaa Met Xaa Xaa	Pro	Gly Ser Arg Lys	Phe	Asn Thr Thr
9305		9310		9315	
Glu Arg	Val Leu Gln Gly	Leu	Leu Xaa Pro Xaa	Phe	Lys Xaa Thr
9320		9325		9330	
Ser Val	Gly Xaa Leu Tyr	Ser	Gly Cys Arg Leu	Thr	Leu Leu Arg
9335		9340		9345	
Xaa Glu	Lys Xaa Xaa Ala	Ala	Thr Xaa Val Asp	Xaa	Xaa Cys Xaa
9350		9355		9360	
Xaa Xaa	Xaa Asp Pro Xaa	Xaa	Pro Gly Leu Asp	Arg	Glu Xaa Leu
9365		9370		9375	
Tyr Trp	Glu Leu Ser Xaa	Leu	Thr Xaa Xaa Ile	Xaa	Glu Leu Gly
9380		9385		9390	
Pro Tyr	Xaa Leu Asp Arg	Xaa	Ser Leu Tyr Val	Asn	Gly Phe Thr
9395		9400		9405	
His Trp	Ile Pro Val Pro	Thr	Ser Ser Thr Pro	Gly	Thr Ser Thr
9410		9415		9420	
Val Asp	Leu Gly Ser Gly	Thr	Pro Ser Ser Leu	Pro	Ser Pro Thr
9425		9430		9435	
Thr Ala	Gly Pro Leu Leu	Val	Pro Phe Thr Leu	Asn	Phe Thr Ile
9440		9445		9450	
Thr Asn	Leu Gln Tyr Gly	Glu	Asp Met Gly His	Pro	Gly Ser Arg
9455		9460		9465	
Lys Phe	Asn Thr Thr Glu	Arg	Val Leu Gln Gly	Leu	Leu Gly Pro
9470		9475		9480	

Ile Phe	Lys Asn Thr Ser Val	Gly Pro Leu Tyr Ser	Gly Cys Arg
9485	9490	9495	
Leu Thr	Ser Leu Arg Ser Glu	Lys Asp Gly Ala Ala	Thr Gly Val
9500	9505	9510	
Asp Ala	Ile Cys Ile His His	Leu Asp Pro Lys Ser	Pro Gly Leu
9515	9520	9525	
Asp Arg	Glu Xaa Leu Tyr Trp	Glu Leu Ser Xaa Leu	Thr Xaa Xaa
9530	9535	9540	
Ile Xaa	Glu Leu Gly Pro Tyr	Xaa Leu Asp Arg Xaa	Ser Leu Tyr
9545	9550	9555	
Val Asn	Gly Phe Xaa Xaa Xaa	Xaa Xaa Xaa Xaa Xaa	Thr Ser Thr
9560	9565	9570	
Pro Gly	Thr Ser Xaa Val Xaa	Leu Xaa Thr Ser Gly	Thr Pro Xaa
9575	9580	9585	
Xaa Xaa	Pro Xaa Xaa Thr Xaa	Xaa Xaa Pro Leu Leu	Xaa Pro Phe
9590	9595	9600	
Thr Leu	Asn Phe Thr Ile Thr	Asn Leu Xaa Tyr Glu	Glu Xaa Met
9605	9610	9615	
Xaa Xaa	Pro Gly Ser Arg Lys	Phe Asn Thr Thr Glu	Arg Val Leu
9620	9625	9630	
Gln Gly	Leu Leu Xaa Pro Xaa	Phe Lys Xaa Thr Ser	Val Gly Xaa
9635	9640	9645	
Leu Tyr	Ser Gly Cys Arg Leu	Thr Leu Leu Arg Xaa	Glu Lys Xaa
9650	9655	9660	
Xaa Ala	Ala Thr Xaa Val Asp	Xaa Xaa Cys Xaa Xaa	Xaa Xaa Asp
9665	9670	9675	
Pro Xaa	Xaa Pro Gly Leu Asp	Arg Glu Xaa Leu Tyr	Trp Glu Leu
9680	9685	9690	

Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu	Leu	Gly	Pro	Tyr	Xaa	Leu
9695						9700					9705			
Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly	Phe	Thr	His	Gln	Thr	Phe
9710						9715					9720			
Ala	Pro	Asn	Thr	Ser	Thr	Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly
9725						9730					9735			
Thr	Ser	Gly	Thr	Pro	Ser	Ser	Leu	Pro	Ser	Pro	Thr	Ser	Ala	Gly
9740						9745					9750			
Pro	Leu	Leu	Val	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Thr	Asn	Leu
9755						9760					9765			
Gln	Tyr	Glu	Glu	Asp	Met	His	His	Pro	Gly	Ser	Arg	Lys	Phe	Asn
9770						9775					9780			
Thr	Thr	Glu	Arg	Val	Leu	Gln	Gly	Leu	Leu	Gly	Pro	Met	Phe	Lys
9785						9790					9795			
Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly	Cys	Arg	Leu	Thr	Leu
9800						9805					9810			
Leu	Arg	Pro	Glu	Lys	Asn	Gly	Ala	Ala	Thr	Arg	Val	Asp	Ala	Val
9815						9820					9825			
Cys	Thr	His	Arg	Pro	Asp	Pro	Lys	Ser	Pro	Gly	Leu	Asp	Arg	Glu
9830						9835					9840			
Xaa	Leu	Tyr	Trp	Glu	Leu	Ser	Xaa	Leu	Thr	Xaa	Xaa	Ile	Xaa	Glu
9845						9850					9855			
Leu	Gly	Pro	Tyr	Xaa	Leu	Asp	Arg	Xaa	Ser	Leu	Tyr	Val	Asn	Gly
9860						9865					9870			
Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Thr	Ser	Thr	Pro	Gly	Thr
9875						9880					9885			

Ser Xaa	Val Xaa	Leu Xaa	Thr	Ser Gly	Thr Pro	Xaa	Xaa Xaa	Pro
9890			9895			9900		
Xaa Xaa	Thr Ala	Pro Val	Pro	Leu Leu	Ile Pro	Phe	Thr Leu	Asn
9905			9910			9915		
Phe Thr	Ile Thr	Asn Leu	His	Tyr Glu	Glu Asn	Met	Gln His	Pro
9920			9925			9930		
Gly Ser	Arg Lys	Phe Asn	Thr	Thr Glu	Arg Val	Leu	Gln Gly	Leu
9935			9940			9945		
Leu Arg	Pro Leu	Phe Lys	Ser	Thr Ser	Val Gly	Pro	Leu Tyr	Ser
9950			9955			9960		
Gly Cys	Arg Leu	Thr Leu	Leu	Arg Pro	Glu Lys	His	Gly Ala	Ala
9965			9970			9975		
Thr Gly	Val Asp	Ala Ile	Cys	Thr Leu	Arg Leu	Asp	Pro Thr	Gly
9980			9985			9990		
Pro Gly	Leu Asp	Arg Glu	Arg	Leu Tyr	Trp Glu	Leu	Ser Gln	Leu
9995			10000			10005		
Thr Asn	Ser Val	Thr Glu	Leu	Gly Pro	Tyr Thr	Leu	Asp Arg	Asp
10010			10015			10020		
Ser Leu	Tyr Val	Asn Gly	Phe	Thr Gln	Arg Ser	Ser	Val Pro	Thr
10025			10030			10035		
Thr Ser	Ile Pro	Gly Thr	Ser	Ala Val	His Leu	Glu	Thr Ser	Gly
10040			10045			10050		
Thr Pro	Ala Ser	Leu Pro	Gly	His Thr	Ala Pro	Gly	Pro Leu	Leu
10055			10060			10065		
Val Pro	Phe Thr	Leu Asn	Phe	Thr Ile	Thr Asn	Leu	Gln Tyr	Glu
10070			10075			10080		
Val Asp	Met Arg	His Pro	Gly	Ser Arg	Lys Phe	Asn	Thr Thr	Glu
10085			10090			10095		

Arg Val 10100	Leu Gln Gly Leu Leu 10105	Lys Pro Leu Phe Lys 10110	Ser Thr Ser
Val Gly 10115	Pro Leu Tyr Ser Gly 10120	Cys Arg Leu Thr Leu 10125	Leu Arg Pro
Glu Lys 10130	Arg Gly Ala Ala Thr 10135	Gly Val Asp Thr Ile 10140	Cys Thr His
Arg Leu 10145	Asp Pro Leu Asn Pro 10150	Gly Leu Asp Arg Glu 10155	Gln Leu Tyr
Trp Glu 10160	Leu Ser Lys Leu Thr 10165	Arg Gly Ile Ile Glu 10170	Leu Gly Pro
Tyr Leu 10175	Leu Asp Arg Gly Ser 10180	Leu Tyr Val Asn Gly 10185	Phe Thr His
Arg Asn 10190	Phe Val Pro Ile Thr 10195	Ser Thr Pro Gly Thr 10200	Ser Thr Val
His Leu 10205	Gly Thr Ser Glu Thr 10210	Pro Ser Ser Leu Pro 10215	Arg Pro Ile
Val Pro 10220	Gly Pro Leu Leu Val 10225	Pro Phe Thr Leu Asn 10230	Phe Thr Ile
Thr Asn 10235	Leu Gln Tyr Glu Glu 10240	Ala Met Arg His Pro 10245	Gly Ser Arg
Lys Phe 10250	Asn Thr Thr Glu Arg 10255	Val Leu Gln Gly Leu 10260	Leu Arg Pro
Leu Phe 10265	Lys Asn Thr Ser Ile 10270	Gly Pro Leu Tyr Ser 10275	Ser Cys Arg
Leu Thr 10280	Leu Leu Arg Pro Glu 10285	Lys Asp Lys Ala Ala 10290	Thr Arg Val

Asp Ala 10295	Ile Cys Thr His His 10300	Pro Asp Pro Gln Ser 10305	Pro Gly Leu
Asn Arg 10310	Glu Gln Leu Tyr Trp 10315	Glu Leu Ser Gln Leu 10320	Thr His Gly
Ile Thr 10325	Glu Leu Gly Pro Tyr 10330	Thr Leu Asp Arg Asp 10335	Ser Leu Tyr
Val Asp 10340	Gly Phe Thr His Trp 10345	Ser Pro Ile Pro Thr 10350	Thr Ser Thr
Pro Gly 10355	Thr Ser Ile Val Asn 10360	Leu Gly Thr Ser Gly 10365	Ile Pro Pro
Ser Leu 10370	Pro Glu Thr Thr Xaa 10375	Xaa Xaa Pro Leu Leu 10380	Xaa Pro Phe
Thr Leu 10385	Asn Phe Thr Ile Thr 10390	Asn Leu Xaa Tyr Glu 10395	Glu Xaa Met
Xaa Xaa 10400	Pro Gly Ser Arg Lys 10405	Phe Asn Thr Thr Glu 10410	Arg Val Leu
Gln Gly 10415	Leu Leu Lys Pro Leu 10420	Phe Lys Ser Thr Ser 10425	Val Gly Pro
Leu Tyr 10430	Ser Gly Cys Arg Leu 10435	Thr Leu Leu Arg Pro 10440	Glu Lys Asp
Gly Val 10445	Ala Thr Arg Val Asp 10450	Ala Ile Cys Thr His 10455	Arg Pro Asp
Pro Lys 10460	Ile Pro Gly Leu Asp 10465	Arg Gln Gln Leu Tyr 10470	Trp Glu Leu
Ser Gln 10475	Leu Thr His Ser Ile 10480	Thr Glu Leu Gly Pro 10485	Tyr Thr Leu
Asp Arg 10490	Asp Ser Leu Tyr Val 10495	Asn Gly Phe Thr Gln 10500	Arg Ser Ser

Val Pro Thr Thr Ser Thr Pro Gly Thr Phe Thr Val Gln Pro Glu
10505 10510 10515

Thr Ser Glu Thr Pro Ser Ser Leu Pro Gly Pro Thr Ala Thr Gly
10520 10525 10530

Pro Val Leu Leu Pro Phe Thr Leu Asn Phe Thr Ile Thr Asn Leu
10535 10540 10545

Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe Asn
10550 10555 10560

Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Met Pro Leu Phe Lys
10565 10570 10575

Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly Cys Arg Leu Thr Leu
10580 10585 10590

Leu Arg Pro Glu Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Val
10595 10600 10605

Cys Thr His Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu
10610 10615 10620

Arg Leu Tyr Trp Lys Leu Ser Gln Leu Thr His Gly Ile Thr Glu
10625 10630 10635

Leu Gly Pro Tyr Thr Leu Asp Arg His Ser Leu Tyr Val Asn Gly
10640 10645 10650

Phe Thr His Gln Ser Ser Met Thr Thr Thr Arg Thr Pro Asp Thr
10655 10660 10665

Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser Leu Ser
10670 10675 10680

Gly Pro Thr Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn
10685 10690 10695

Phe Thr 10700	Ile Thr Asn Leu Arg 10705	Tyr Glu Glu Asn Met 10710	His His Pro
Gly Ser 10715	Arg Lys Phe Asn Thr 10720	Thr Glu Arg Val Leu 10725	Gln Gly Leu
Leu Arg 10730	Pro Val Phe Lys Asn 10735	Thr Ser Val Gly Pro 10740	Leu Tyr Ser
Gly Cys 10745	Arg Leu Thr Leu Leu 10750	Arg Pro Lys Lys Asp 10755	Gly Ala Ala
Thr Lys 10760	Val Asp Ala Ile Cys 10765	Thr Tyr Arg Pro Asp 10770	Pro Lys Ser
Pro Gly 10775	Leu Asp Arg Glu Gln 10780	Leu Tyr Trp Glu Leu 10785	Ser Gln Leu
Thr His 10790	Ser Ile Thr Glu Leu 10795	Gly Pro Tyr Thr Gln 10800	Asp Arg Asp
Ser Leu 10805	Tyr Asn Val Gly Phe 10810	Thr Gln Arg Ser Ser 10815	Val Pro Thr
Thr Ser 10820	Val Pro Gly Thr Pro 10825	Thr Val Asp Leu Gly 10830	Thr Ser Gly
Thr Pro 10835	Val Ser Lys Pro Gly 10840	Pro Ser Ala Ala Ser 10845	Pro Leu Leu
Val Leu 10850	Phe Thr Leu Asn Gly 10855	Thr Ile Thr Asn Leu 10860	Arg Tyr Glu
Glu Asn 10865	Met Gln His Pro Gly 10870	Ser Arg Lys Phe Asn 10875	Thr Thr Glu
Arg Val 10880	Leu Gln Gly Leu Leu 10885	Arg Ser Leu Phe Lys 10890	Ser Thr Ser
Val Gly 10895	Pro Leu Tyr Ser Gly 10900	Cys Arg Leu Thr Leu 10905	Leu Arg Pro

Glu Lys	Asp Gly Thr Ala Thr	Gly Val Asp Ala Ile	Cys Thr His
10910	10915	10920	
His Pro	Asp Pro Lys Ser Pro	Arg Leu Asp Arg Glu	Gln Leu Tyr
10925	10930	10935	
Trp Glu	Leu Ser Gln Leu Thr	His Asn Ile Thr Glu	Leu Gly His
10940	10945	10950	
Tyr Ala	Leu Asp Asn Asp Ser	Leu Phe Val Asn Gly	Phe Thr His
10955	10960	10965	
Arg Ser	Ser Val Ser Thr Thr	Ser Thr Pro Gly Thr	Pro Thr Val
10970	10975	10980	
Tyr Leu	Gly Ala Ser Lys Thr	Pro Ala Ser Ile Phe	Gly Pro Ser
10985	10990	10995	
Ala Ala	Ser His Leu Leu Ile	Leu Phe Thr Leu Asn	Phe Thr Ile
11000	11005	11010	
Thr Asn	Leu Arg Tyr Glu Glu	Asn Met Trp Pro Gly	Ser Arg Lys
11015	11020	11025	
Phe Asn	Thr Thr Glu Arg Val	Leu Gln Gly Leu Leu	Arg Pro Leu
11030	11035	11040	
Phe Lys	Asn Thr Ser Val Gly	Pro Leu Tyr Ser Gly	Ser Arg Leu
11045	11050	11055	
Thr Leu	Leu Arg Pro Glu Lys	Asp Gly Glu Ala Thr	Gly Val Asp
11060	11065	11070	
Ala Ile	Cys Thr His Arg Pro	Asp Pro Thr Gly Pro	Gly Leu Asp
11075	11080	11085	
Arg Glu	Gln Leu Tyr Leu Glu	Leu Ser Gln Leu Thr	His Ser Ile
11090	11095	11100	

Thr Glu 11105	Leu Gly Pro Tyr	Thr 11110	Leu Asp Arg Asp	Ser 11115	Leu Tyr Val
Asn Gly 11120	Phe Thr His Arg	Ser 11125	Ser Val Pro Thr	Thr 11130	Ser Thr Gly
Val Val 11135	Ser Glu Glu Pro	Phe 11140	Thr Leu Asn Phe	Thr 11145	Ile Asn Asn
Leu Arg 11150	Tyr Met Ala Asp	Met 11155	Gly Gln Pro Gly	Ser 11160	Leu Lys Phe
Asn Ile 11165	Thr Asp Asn Val	Met 11170	Lys His Leu Leu	Ser 11175	Pro Leu Phe
Gln Arg 11180	Ser Ser Leu Gly	Ala 11185	Arg Tyr Thr Gly	Cys 11190	Arg Val Ile
Ala Leu 11195	Arg Ser Val Lys	Asn 11200	Gly Ala Glu Thr	Arg 11205	Val Asp Leu
Leu Cys 11210	Thr Tyr Leu Gln	Pro 11215	Leu Ser Gly Pro	Gly 11220	Leu Pro Ile
Lys Gln 11225	Val Phe His Glu	Leu 11230	Ser Gln Gln Thr	His 11235	Gly Ile Thr
Arg Leu 11240	Gly Pro Tyr Ser	Leu 11245	Asp Lys Asp Ser	Leu 11250	Tyr Leu Asn
Gly Tyr 11255	Asn Glu Pro Gly	Leu 11260	Asp Glu Pro Pro	Thr 11265	Thr Pro Lys
Pro Ala 11270	Thr Thr Phe Leu	Pro 11275	Pro Leu Ser Glu	Ala 11280	Thr Thr Ala
Met Gly 11285	Tyr His Leu Lys	Thr 11290	Leu Thr Leu Asn	Phe 11295	Thr Ile Ser
Asn Leu 11300	Gln Tyr Ser Pro	Asp 11305	Met Gly Lys Gly	Ser 11310	Ala Thr Phe

Asn Ser	Thr Glu Gly Val	Leu	Gln His Leu Leu Arg	Pro Leu Phe
11315		11320		11325
Gln Lys	Ser Ser Met Gly	Pro	Phe Tyr Leu Gly Cys	Gln Leu Ile
11330		11335		11340
Ser Leu	Arg Pro Glu Lys	Asp	Gly Ala Ala Thr Gly	Val Asp Thr
11345		11350		11355
Thr Cys	Thr Tyr His Pro	Asp	Pro Val Gly Pro Gly	Leu Asp Ile
11360		11365		11370
Gln Gln	Leu Tyr Trp Glu	Leu	Ser Gln Leu Thr His	Gly Val Thr
11375		11380		11385
Gln Leu	Gly Phe Tyr Val	Leu	Asp Arg Asp Ser Leu	Phe Ile Asn
11390		11395		11400
Gly Tyr	Ala Pro Gln Asn	Leu	Ser Ile Arg Gly Glu	Tyr Gln Ile
11405		11410		11415
Asn Phe	His Ile Val Asn	Trp	Asn Leu Ser Asn Pro	Asp Pro Thr
11420		11425		11430
Ser Ser	Glu Tyr Ile Thr	Leu	Leu Arg Asp Ile Gln	Asp Lys Val
11435		11440		11445
Thr Thr	Leu Tyr Lys Gly	Ser	Gln Leu His Asp Thr	Phe Arg Phe
11450		11455		11460
Cys Leu	Val Thr Asn Leu	Thr	Met Asp Ser Val Leu	Val Thr Val
11465		11470		11475
Lys Ala	Leu Phe Ser Ser	Asn	Leu Asp Pro Ser Leu	Val Glu Gln
11480		11485		11490
Val Phe	Leu Asp Lys Thr	Leu	Asn Ala Ser Phe His	Trp Leu Gly
11495		11500		11505

Ser Thr 11510	Tyr Gln Leu Val	Asp 11515	Ile His Val Thr	Glu 11520	Met Glu Ser
Ser Val 11525	Tyr Gln Pro Thr	Ser 11530	Ser Ser Ser Thr	Gln 11535	His Phe Tyr
Leu Asn 11540	Phe Thr Ile Thr	Asn 11545	Leu Pro Tyr Ser	Gln 11550	Asp Lys Ala
Gln Pro 11555	Gly Thr Thr Asn	Tyr 11560	Gln Arg Asn Lys	Arg 11565	Asn Ile Glu
Asp Ala 11570	Leu Asn Gln Leu	Phe 11575	Arg Asn Ser Ser	Ile 11580	Lys Ser Tyr
Phe Ser 11585	Asp Cys Gln Val	Ser 11590	Thr Phe Arg Ser	Val 11595	Pro Asn Arg
His His 11600	Thr Gly Val Asp	Ser 11605	Leu Cys Asn Phe	Ser 11610	Pro Leu Ala
Arg Arg 11615	Val Asp Arg Val	Ala 11620	Ile Tyr Glu Glu	Phe 11625	Leu Arg Met
Thr Arg 11630	Asn Gly Thr Gln	Leu 11635	Gln Asn Phe Thr	Leu 11640	Asp Arg Ser
Ser Val 11645	Leu Val Asp Gly	Tyr 11650	Ser Pro Asn Arg	Asn 11655	Glu Pro Leu
Thr Gly 11660	Asn Ser Asp Leu	Pro 11665	Phe Trp Ala Val	Ile 11670	Leu Ile Gly
Leu Ala 11675	Gly Leu Leu Gly	Leu 11680	Ile Thr Cys Leu	Ile 11685	Cys Gly Val
Leu Val 11690	Thr Thr Arg Arg	Arg 11695	Lys Lys Glu Gly	Glu 11700	Tyr Asn Val
Gln Gln 11705	Gln Cys Pro Gly	Tyr 11710	Tyr Gln Ser His	Leu 11715	Asp Leu Glu

Asp Leu Gln
11720

<210> 163

<211> 156

<212> PRT

<213> Homo sapiens

<400> 163

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
20 25 30

Asn Ala Thr Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Phe Lys
35 40 45

Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu
50 55 60

Arg Pro Glu Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu
65 70 75 80

Tyr His Pro Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr
85 90 95

Trp Glu Leu Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr
100 105 110

Ser Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly Phe Thr His Gln Asn
115 120 125

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Tyr Trp Ala
130 135 140

Thr Thr Gly Thr Pro Ser Ser Phe Pro Gly His Thr
 145 150 155

<210> 164

<211> 42

<212> PRT

<213> Homo sapiens

<400> 164

Ala Thr Val Pro Phe Met Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Ala Thr Glu Arg Glu Leu Gln Gly Leu
 35 40

<210> 165

<211> 42

<212> PRT

<213> Homo sapiens

<400> 165

Thr Ala Val Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Gly Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 166

<211> 42

<212> PRT

<213> Homo sapiens

<400> 166

Val Pro Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Ala Met Arg His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 167

<211> 42

<212> PRT

<213> Homo sapiens

<400> 167

Ala Pro Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
20 25 30

Ser Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 168

<211> 42

<212> PRT

<213> Homo sapiens

<400> 168

Ala Pro Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 169

<211> 42

<212> PRT

<213> Homo sapiens

<400> 169

Ala Pro Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Val Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 170

<211> 42

<212> PRT

<213> Homo sapiens

<400> 170

Ser Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 171

<211> 42

<212> PRT

<213> Homo sapiens

<400> 171

Ala Ala Gly Pro Leu Leu Met Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Met Glu Ser Val Leu Gln Gly Leu
 35 40

<210> 172

<211> 42

<212> PRT

<213> Homo sapiens

<400> 172

Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn Cys Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met Arg Arg Thr Gly Ser Arg Lys Phe
 20 25 30

317

Asn Thr Met Glu Ser Val Leu Gln Gly Leu
35 40

<210> 173

<211> 42

<212> PRT

<213> Homo sapiens

<400> 173

Ala Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Gly Glu Asp Met Gly His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 174

<211> 42

<212> PRT

<213> Homo sapiens

<400> 174

Thr Ala Gly Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Gly Glu Asp Met Gly His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 175

<211> 42

<212> PRT

<213> Homo sapiens

<400> 175

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Gly Glu Asp Met Gly His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 176

<211> 42

<212> PRT

<213> Homo sapiens

<400> 176

Thr Ala Gly Pro Leu Leu Val Leu Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Lys Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Thr Leu
35 40

<210> 177

<211> 42

<212> PRT

<213> Homo sapiens

<400> 177

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Ala Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 178

<211> 42

<212> PRT

<213> Homo sapiens

<400> 178

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Arg Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 179

<211> 42

<212> PRT

<213> Homo sapiens

<400> 179

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 180

<211> 42

<212> PRT

<213> Homo sapiens

<400> 180

Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 181

<211> 42

<212> PRT

<213> Homo sapiens

<400> 181

Ala Thr Gly Pro Val Leu Leu Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
 20 25 30

321

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 182

<211> 42

<212> PRT

<213> Homo sapiens

<400> 182

Ala Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 183

<211> 42

<212> PRT

<213> Homo sapiens

<400> 183

Ser Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Gln Tyr Glu Glu Asp Met His His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 184

<211> 42

<212> PRT

<213> Homo sapiens

<400> 184

Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn Phe Thr Ile Thr
1 5 10 15

Asn Gln Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 185

<211> 42

<212> PRT

<213> Homo sapiens

<400> 185

Thr Ala Ser Pro Leu Leu Val Leu Phe Thr Ile Asn Phe Thr Ile Thr
1 5 10 15

Asn Leu Arg Tyr Glu Glu Asn Met His His Pro Gly Ser Arg Lys Phe
20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
35 40

<210> 186

<211> 42

<212> PRT

<213> Homo sapiens

<400> 186

Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 187

<211> 42

<212> PRT

<213> Homo sapiens

<400> 187

Glu Pro Gly Pro Leu Leu Ile Pro Phe Thr Phe Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Arg Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 188

<211> 42

<212> PRT

<213> Homo sapiens

<400> 188

Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 189

<211> 42

<212> PRT

<213> Homo sapiens

<400> 189

Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asp Leu His Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 190

<211> 42

<212> PRT

<213> Homo sapiens

<400> 190

Ala Ala Ser Pro Leu Leu Val Leu Phe Thr Leu Asn Gly Thr Ile Thr
 1 5 10 15

Asn Leu Arg Tyr Glu Glu Asn Met Gln His Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 191

<211> 42

<212> PRT

<213> Homo sapiens

<400> 191

Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Lys Tyr Glu Glu Asp Met His Cys Pro Gly Ser Arg Lys Phe
 20 25 30

Asn Thr Thr Glu Arg Val Leu Gln Ser Leu
 35 40

<210> 192

<211> 41

<212> PRT

<213> Homo sapiens

<400> 192

Ala Ala Ser His Leu Leu Ile Leu Phe Thr Leu Asn Phe Thr Ile Thr
 1 5 10 15

Asn Leu Arg Tyr Glu Glu Asn Met Trp Pro Gly Ser Arg Lys Phe Asn
 20 25 30

Thr Thr Glu Arg Val Leu Gln Gly Leu
 35 40

<210> 193

<211> 42

<212> PRT

<213> Homo sapiens

<400> 193

Thr	Gly	Val	Val	Ser	Glu	Glu	Pro	Phe	Thr	Leu	Asn	Phe	Thr	Ile	Asn
1				5				10						15	

Asn	Leu	Arg	Tyr	Met	Ala	Asp	Met	Gly	Gln	Pro	Gly	Ser	Leu	Lys	Phe
			20					25					30		

Asn	Ile	Thr	Asp	Asn	Val	Met	Lys	His	Leu
		35					40		

<210> 194

<211> 42

<212> PRT

<213> Homo sapiens

<400> 194

Ala	Met	Gly	Tyr	His	Leu	Lys	Thr	Leu	Thr	Leu	Asn	Phe	Thr	Ile	Ser
1				5				10						15	

Asn	Leu	Gln	Tyr	Ser	Pro	Asp	Met	Gly	Lys	Gly	Ser	Ala	Thr	Phe	Asn
			20					25					30		

Ser	Thr	Glu	Gly	Val	Leu	Gln	His	Leu	Leu
		35					40		

<210> 195

<211> 23

<212> PRT

<213> Homo sapiens

<400> 195

Leu Lys Pro Leu Phe Arg Asn Ser Ser Leu Glu Tyr Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Ala Ser Leu Arg
20

<210> 196

<211> 23

<212> PRT

<213> Homo sapiens

<400> 196

Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
20

<210> 197

<211> 23

<212> PRT

<213> Homo sapiens

<400> 197

Leu Lys Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
20

<210> 198

<211> 23

<212> PRT

<213> Homo sapiens

<400> 198

Leu	Lys	Pro	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 199

<211> 23

<212> PRT

<213> Homo sapiens

<400> 199

Leu	Lys	Pro	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Ser
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 200

<211> 23

<212> PRT

<213> Homo sapiens

<400> 200

Leu	Lys	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys Arg Leu Thr Ser Leu Arg
20

<210> 201

<211> 23

<212> PRT

<213> Homo sapiens

<400> 201

Leu Gly Pro Ile Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Ser Leu Arg
20

<210> 202

<211> 23

<212> PRT

<213> Homo sapiens

<400> 202

Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Leu Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
20

<210> 203

<211> 23

<212> PRT

<213> Homo sapiens

<400> 203

Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
20

<210> 204

<211> 23

<212> PRT

<213> Homo sapiens

<400> 204

Leu Gly Pro Met Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Ser Leu Arg
20

<210> 205

<211> 23

<212> PRT

<213> Homo sapiens

<400> 205

Leu Gly Pro Leu Phe Lys Asn Ser Ser Val Gly Pro Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Ile Ser Leu Arg
20

<210> 206

<211> 23

<212> PRT

<213> Homo sapiens

<400> 206

Leu	Gly	Pro	Leu	Phe	Lys	Asn	Ser	Ser	Val	Asp	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Ser	Leu	Arg
			20			

<210> 207

<211> 23

<212> PRT

<213> Homo sapiens

<400> 207

Leu	Ser	Pro	Ile	Phe	Lys	Asn	Ser	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Ser	Leu	Arg
			20			

<210> 208

<211> 23

<212> PRT

<213> Homo sapiens

<400> 208

Leu	Ser	Pro	Ile	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 209

<211> 23

<212> PRT

<213> Homo sapiens

<400> 209

Leu	Ser	Pro	Leu	Phe	Gln	Arg	Ser	Ser	Leu	Gly	Ala	Arg	Tyr	Thr	Gly
1				5					10					15	

Cys	Arg	Val	Ile	Ala	Leu	Arg
			20			

<210> 210

<211> 23

<212> PRT

<213> Homo sapiens

<400> 210

Leu	Arg	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 211

<211> 23

<212> PRT

<213> Homo sapiens

<400> 211

Leu Arg Pro Leu Phe Lys Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly
 1 5 10 15

Ser Arg Leu Thr Leu Leu Arg
 20

<210> 212

<211> 23

<212> PRT

<213> Homo sapiens

<400> 212

Leu Arg Pro Leu Phe Lys Asn Thr Ser Ile Gly Pro Leu Tyr Ser Ser
 1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
 20

<210> 213

<211> 23

<212> PRT

<213> Homo sapiens

<400> 213

Leu Arg Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly
 1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
 20

<210> 214

<211> 23

<212> PRT

<213> Homo sapiens

<400> 214

Leu	Arg	Pro	Val	Phe	Lys	Asn	Thr	Ser	Val	Gly	Leu	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 215

<211> 23

<212> PRT

<213> Homo sapiens

<400> 215

Leu	Arg	Pro	Val	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 216

<211> 23

<212> PRT

<213> Homo sapiens

<400> 216

Leu	Arg	Ser	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 217

<211> 23

<212> PRT

<213> Homo sapiens

<400> 217

Leu	Arg	Ser	Leu	Phe	Lys	Ser	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Ser	Leu	Arg
			20			

<210> 218

<211> 23

<212> PRT

<213> Homo sapiens

<400> 218

Leu	Thr	Pro	Leu	Phe	Lys	Asn	Thr	Ser	Val	Gly	Pro	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys	Arg	Leu	Thr	Leu	Leu	Arg
			20			

<210> 219

<211> 23

<212> PRT

<213> Homo sapiens

<400> 219

Leu	Thr	Pro	Leu	Phe	Arg	Asn	Thr	Ser	Val	Ser	Ser	Leu	Tyr	Ser	Gly
1				5					10					15	

Cys Arg Leu Thr Leu Leu Arg
20

<210> 220

<211> 23

<212> PRT

<213> Homo sapiens

<400> 220

Leu Met Pro Leu Phe Lys Asn Thr Ser Val Ser Ser Leu Tyr Ser Gly
1 5 10 15

Cys Arg Leu Thr Leu Leu Arg
20

<210> 221

<211> 22

<212> PRT

<213> Homo sapiens

<400> 221

Arg Pro Leu Phe Gln Lys Ser Ser Met Gly Pro Phe Tyr Leu Gly Cys
1 5 10 15

Gln Leu Ile Ser Leu Arg
20

<210> 222

<211> 58

<212> PRT

<213> Homo sapiens

<400> 222

Pro Glu Lys Asp Ser Ser Ala Met Ala Val Asp Ala Ile Cys Thr His
 1 5 10 15

Arg Pro Asp Pro Glu Asp Leu Gly Leu Asp Arg Glu Arg Leu Tyr Trp
 20 25 30

Glu Leu Ser Asn Leu Thr Asn Gly Ile Gln Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 50 55

<210> 223

<211> 58

<212> PRT

<213> Homo sapiens

<400> 223

Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
 1 5 10 15

Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp
 20 25 30

Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 50 55

<210> 224

<211> 58

<212> PRT

<213> Homo sapiens

<400> 224

Pro Lys Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
1 5 10 15

Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Lys Leu Thr Asn Asp Ile Glu Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
50 55

<210> 225

<211> 58

<212> PRT

<213> Homo sapiens

<400> 225

Pro Glu Lys Asp Gly Thr Ala Thr Gly Val Asp Ala Ile Cys Thr His
1 5 10 15

His Pro Asp Pro Lys Ser Pro Arg Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly His Tyr Ala
35 40 45

Leu Asp Asn Asp Ser Leu Phe Val Asn Gly
50 55

<210> 226

<211> 58

<212> PRT

<213> Homo sapiens

<400> 226

Pro Glu Lys Asp Gly Glu Ala Thr Gly Val Asp Ala Ile Cys Thr His
1 5 10 15

Arg Pro Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Gln Leu Tyr Leu
20 25 30

Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 227

<211> 58

<212> PRT

<213> Homo sapiens

<400> 227

Pro Glu Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr
1 5 10 15

His Pro Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser
35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 228

<211> 58

<212> PRT

<213> Homo sapiens

<400> 228

Pro Glu Lys Asp Gly Ala Ala Thr Gly Met Asp Ala Val Cys Leu Tyr
1 5 10 15

His Pro Asn Pro Lys Arg Pro Gly Leu Asp Arg Glu Gln Leu Tyr Cys
20 25 30

Glu Leu Ser Gln Leu Thr His Asn Ile Thr Glu Leu Gly Pro Tyr Ser
35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 229

<211> 58

<212> PRT

<213> Homo sapiens

<400> 229

Pro Glu Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Ala Cys Thr Tyr
1 5 10 15

Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Val Ser Leu Tyr Val Asn Gly
50 55

<210> 230

<211> 58

<212> PRT

<213> Homo sapiens

<400> 230

Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr
1 5 10 15

Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Gln Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 231

<211> 58

<212> PRT

<213> Homo sapiens

<400> 231

Pro Lys Lys Asp Gly Ala Ala Thr Lys Val Asp Ala Ile Cys Thr Tyr
1 5 10 15

Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Gln Asp Arg Asp Ser Leu Tyr Asn Val Gly
50 55

<210> 232

<211> 58

<212> PRT

<213> Homo sapiens

<400> 232

Pro Glu Lys Asp Gly Ala Ala Thr Arg Val Asp Ala Val Cys Thr His
1 5 10 15

Arg Pro Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
20 25 30

Lys Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg His Ser Leu Tyr Val Asn Gly
50 55

<210> 233

<211> 58

<212> PRT

<213> Homo sapiens

<400> 233

Pro Glu Lys Asp Gly Val Ala Thr Arg Val Asp Ala Ile Cys Thr His
1 5 10 15

Arg Pro Asp Pro Lys Ile Pro Gly Leu Asp Arg Gln Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Ser Ile Thr Glu Leu Gly Pro Tyr Thr
35 40 45

343

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 234

<211> 58

<212> PRT

<213> Homo sapiens

<400> 234

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Ile His
1 5 10 15

His Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Arg Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
50 55

<210> 235

<211> 58

<212> PRT

<213> Homo sapiens

<400> 235

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
1 5 10 15

Arg Leu Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 50 55

<210> 236

<211> 58

<212> PRT

<213> Homo sapiens

<400> 236

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
 1 5 10 15

Arg Leu Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 50 55

<210> 237

<211> 58

<212> PRT

<213> Homo sapiens

<400> 237

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
 1 5 10 15

Arg Val Asp Pro Lys Ser Pro Gly Val Asp Arg Glu Gln Leu Tyr Trp
 20 25 30

345

Glu Leu Ser Gln Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
50 55

<210> 238

<211> 58

<212> PRT

<213> Homo sapiens

<400> 238

Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr His
1 5 10 15

His Leu Asn Pro Gln Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Gln Leu Ser Gln Met Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
50 55

<210> 239

<211> 58

<212> PRT

<213> Homo sapiens

<400> 239

Pro Glu Lys Arg Gly Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His
1 5 10 15

Arg Leu Asp Pro Leu Asn Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Lys Leu Thr Arg Gly Ile Ile Glu Leu Gly Pro Tyr Leu
 35 40 45

Leu Asp Arg Gly Ser Leu Tyr Val Asn Gly
 50 55

<210> 240

<211> 58

<212> PRT

<213> Homo sapiens

<400> 240

Pro Glu Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys Ser His
 1 5 10 15

Arg Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
 50 55

<210> 241

<211> 58

<212> PRT

<213> Homo sapiens

<400> 241

Pro Glu Lys Asn Gly Ala Ala Thr Gly Met Asp Ala Ile Cys Ser His
 1 5 10 15

347

Arg Leu Asp Pro Lys Ser Pro Gly Leu Asp Arg Glu Gln Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr His Gly Ile Lys Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly
50 55

<210> 242

<211> 58

<212> PRT

<213> Homo sapiens

<400> 242

Pro Glu Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu
1 5 10 15

Arg Leu Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
20 25 30

Glu Leu Ser Gln Leu Thr Asn Ser Val Thr Glu Leu Gly Pro Tyr Thr
35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
50 55

<210> 243

<211> 58

<212> PRT

<213> Homo sapiens

<400> 243

Pro Glu Lys His Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Thr Leu
1 5 10 15

Arg Leu Asp Pro Thr Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
 50 55

<210> 244

<211> 58

<212> PRT

<213> Homo sapiens

<400> 244

Pro Glu Lys His Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His
 1 5 10 15

Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
 50 55

<210> 245

<211> 58

<212> PRT

<213> Homo sapiens

<400> 245

349

Pro Glu Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His
 1 5 10 15

Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asn Gly
 50 55

<210> 246

<211> 58

<212> PRT

<213> Homo sapiens

<400> 246

Pro Glu Lys Gln Glu Ala Ala Thr Gly Val Asp Thr Ile Cys Thr His
 1 5 10 15

Arg Val Asp Pro Ile Gly Pro Gly Leu Asp Arg Glu Arg Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr Asn Ser Ile Thr Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asp Gly
 50 55

<210> 247

<211> 58

<212> PRT

<213> Homo sapiens

<400> 247

Pro Glu Lys Asp Lys Ala Ala Thr Arg Val Asp Ala Ile Cys Thr His
 1 5 10 15

His Pro Asp Pro Gln Ser Pro Gly Leu Asn Arg Glu Gln Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr His Gly Ile Thr Glu Leu Gly Pro Tyr Thr
 35 40 45

Leu Asp Arg Asp Ser Leu Tyr Val Asp Gly
 50 55

<210> 248

<211> 58

<212> PRT

<213> Homo sapiens

<400> 248

Ser Val Lys Asn Gly Ala Glu Thr Arg Val Asp Leu Leu Cys Thr Tyr
 1 5 10 15

Leu Gln Pro Leu Ser Gly Pro Gly Leu Pro Ile Lys Gln Val Phe His
 20 25 30

Glu Leu Ser Gln Gln Thr His Gly Ile Thr Arg Leu Gly Pro Tyr Ser
 35 40 45

Leu Asp Lys Asp Ser Leu Tyr Leu Asn Gly
 50 55

<210> 249

<211> 58

<212> PRT

<213> Homo sapiens

<400> 249

Pro Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Thr Thr Cys Thr Tyr
 1 5 10 15

His Pro Asp Pro Val Gly Pro Gly Leu Asp Ile Gln Gln Leu Tyr Trp
 20 25 30

Glu Leu Ser Gln Leu Thr His Gly Val Thr Gln Leu Gly Phe Tyr Val
 35 40 45

Leu Asp Arg Asp Ser Leu Phe Ile Asn Gly
 50 55

<210> 250

<211> 12

<212> PRT

<213> Homo sapiens

<400> 250

Phe Thr His Arg Ser Ser Met Pro Thr Thr Ser Thr
 1 5 10

<210> 251

<211> 12

<212> PRT

<213> Homo sapiens

<400> 251

Phe Thr His Arg Ser Ser Met Pro Thr Thr Ser Ile
 1 5 10

<210> 252

<211> 12

<212> PRT

<213> Homo sapiens

<400> 252

Phe	Thr	His	Arg	Thr	Ser	Val	Pro	Thr	Ser	Ser	Thr
1				5					10		

<210> 253

<211> 12

<212> PRT

<213> Homo sapiens

<400> 253

Phe	Thr	His	Arg	Thr	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 254

<211> 12

<212> PRT

<213> Homo sapiens

<400> 254

Phe	Thr	His	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ser
1				5					10		

<210> 255

<211> 12

<212> PRT

<213> Homo sapiens

<400> 255

Phe Thr His Arg Ser Ser Val Ser Thr Thr Ser Thr
1 5 10

<210> 256

<211> 12

<212> PRT

<213> Homo sapiens

<400> 256

Phe Thr His Arg Ser Ser Val Ala Pro Thr Ser Thr
1 5 10

<210> 257

<211> 12

<212> PRT

<213> Homo sapiens

<400> 257

Phe Thr His Arg Ser Ser Gly Leu Thr Thr Ser Thr
1 5 10

<210> 258

<211> 12

<212> PRT

<213> Homo sapiens

<400> 258

Phe Thr His Arg Ser Phe Gly Leu Thr Thr Ser Thr
1 5 10

<210> 259

<211> 12

<212> PRT

<213> Homo sapiens

<400> 259

Phe	Thr	His	Arg	Ser	Ser	Phe	Leu	Thr	Thr	Ser	Thr
1				5				10			

<210> 260

<211> 12

<212> PRT

<213> Homo sapiens

<400> 260

Phe	Thr	His	Arg	Asn	Phe	Val	Pro	Ile	Thr	Ser	Thr
1				5				10			

<210> 261

<211> 12

<212> PRT

<213> Homo sapiens

<400> 261

Phe	Thr	His	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile
1				5				10			

<210> 262

<211> 12

<212> PRT

<213> Homo sapiens

<400> 262

Phe	Thr	His	Gln	Ser	Ser	Val	Ser	Thr	Thr	Ser	Thr
1				5					10		

<210> 263

<211> 12

<212> PRT

<213> Homo sapiens

<400> 263

Phe	Thr	His	Gln	Thr	Ser	Ala	Pro	Asn	Thr	Ser	Thr
1				5					10		

<210> 264

<211> 12

<212> PRT

<213> Homo sapiens

<400> 264

Phe	Thr	His	Gln	Thr	Phe	Ala	Pro	Asn	Thr	Ser	Thr
1				5					10		

<210> 265

<211> 12

<212> PRT

<213> Homo sapiens

<400> 265

Phe	Thr	His	Gln	Asn	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 266

<211> 12

<212> PRT

<213> Homo sapiens

<400> 266

Phe	Thr	His	Gln	Ser	Ser	Met	Thr	Thr	Thr	Arg	Thr
1				5					10		

<210> 267

<211> 12

<212> PRT

<213> Homo sapiens

<400> 267

Phe	Thr	His	Trp	Ile	Pro	Val	Pro	Thr	Ser	Ser	Thr
1				5					10		

<210> 268

<211> 12

<212> PRT

<213> Homo sapiens

<400> 268

Phe	Thr	His	Trp	Ser	Pro	Ile	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 269

<211> 12

<212> PRT

<213> Homo sapiens

<400> 269

Phe	Thr	His	Trp	Ser	Ser	Gly	Leu	Thr	Thr	Ser	Thr
1				5					10		

<210> 270

<211> 12

<212> PRT

<213> Homo sapiens

<400> 270

Phe	His	Pro	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 271

<211> 12

<212> PRT

<213> Homo sapiens

<400> 271

Phe	Asn	Pro	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 272

<211> 12

<212> PRT

<213> Homo sapiens

<400> 272

Phe	Asn	Pro	Trp	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 273

<211> 12

<212> PRT

<213> Homo sapiens

<400> 273

Phe	Thr	Gln	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Ile
1				5					10		

<210> 274

<211> 12

<212> PRT

<213> Homo sapiens

<400> 274

Phe	Thr	Gln	Arg	Ser	Ser	Val	Pro	Thr	Thr	Ser	Thr
1				5					10		

<210> 275

<211> 12

<212> PRT

<213> Homo sapiens

<400> 275

Phe Thr Gln Arg Ser Ser Val Pro Thr Thr Ser Val
 1 5 10

<210> 276

<211> 12

<212> PRT

<213> Homo sapiens

<400> 276

Tyr Asn Glu Pro Gly Leu Asp Glu Pro Pro Thr Thr
 1 5 10

<210> 277

<211> 12

<212> PRT

<213> Homo sapiens

<400> 277

Tyr Ala Pro Gln Asn Leu Ser Ile Arg Gly Glu Tyr
 1 5 10

<210> 278

<211> 21

<212> PRT

<213> Homo sapiens

<400> 278

Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly Thr Pro Ser Ser
 1 5 10 15

Ser Pro Ser Pro Thr
 20

<210> 279

<211> 23

<212> PRT

<213> Homo sapiens

<400> 279

Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Arg	Thr	Ser	Gly	Thr	Pro	Ser	Ser
1				5					10					15	

Leu	Ser	Ser	Pro	Thr	Ile	Met
			20			

<210> 280

<211> 21

<212> PRT

<213> Homo sapiens

<400> 280

Pro	Gly	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Phe	Ser
1				5					10					15	

Leu	Pro	Ser	Pro	Ala
			20	

<210> 281

<211> 20

<212> PRT

<213> Homo sapiens

<400> 281

Pro Gly Thr Ser Thr Val Asp Leu Gly Ser Gly Thr Pro Ser Ser Leu
 1 5 10 15

Pro Ser Pro Thr
 20

<210> 282

<211> 20

<212> PRT

<213> Homo sapiens

<400> 282

Pro Gly Thr Ser Thr Val Asp Leu Gly Ser Gly Thr Pro Ser Leu Pro
 1 5 10 15

Ser Ser Pro Thr
 20

<210> 283

<211> 21

<212> PRT

<213> Homo sapiens

<400> 283

Pro Gly Thr Ser Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Ser Ser
 1 5 10 15

Leu Pro Ser Pro Thr
 20

<210> 284

<211> 21

<212> PRT

<213> Homo sapiens

<400> 284

Pro	Gly	Thr	Pro	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Val	Ser
1				5					10					15	

Lys	Pro	Gly	Pro	Ser
			20	

<210> 285

<211> 21

<212> PRT

<213> Homo sapiens

<400> 285

Pro	Trp	Thr	Ser	Thr	Val	Asp	Leu	Gly	Thr	Ser	Gly	Thr	Pro	Ser	Pro
1				5					10					15	

Val	Pro	Ser	Pro	Thr
			20	

<210> 286

<211> 21

<212> PRT

<213> Homo sapiens

<400> 286

Pro	Gly	Thr	Ser	Thr	Val	Tyr	Trp	Ala	Thr	Thr	Gly	Thr	Pro	Ser	Ser
1				5					10					15	

Phe	Pro	Gly	His	Thr
			20	

<210> 287

<211> 21

<212> PRT

<213> Homo sapiens

<400> 287

Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser
1 5 10 15

Leu Pro Gly His Thr
20

<210> 288

<211> 21

<212> PRT

<213> Homo sapiens

<400> 288

Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Pro
1 5 10 15

Leu Pro Gly His Thr
20

<210> 289

<211> 21

<212> PRT

<213> Homo sapiens

<400> 289

Pro Asp Thr Ser Thr Met His Leu Ala Thr Ser Arg Thr Pro Ala Ser
1 5 10 15

Leu Ser Gly Pro Thr
20

<210> 290

<211> 21

<212> PRT

<213> Homo sapiens

<400> 290

Pro Gly Thr Ser Ala Val His Leu Glu Thr Ser Gly Thr Pro Ala Ser
1 5 10 15

Leu Pro Gly His Thr
20

<210> 291

<211> 21

<212> PRT

<213> Homo sapiens

<400> 291

Pro Gly Thr Ser Ala Val His Leu Glu Thr Thr Gly Thr Pro Ser Ser
1 5 10 15

Phe Pro Gly His Thr
20

<210> 292

<211> 21

<212> PRT

<213> Homo sapiens

<400> 292

Pro Gly Thr Ser Thr Val His Leu Gly Thr Ser Glu Thr Pro Ser Ser
1 5 10 15

Leu Pro Arg Pro Ile
20

<210> 293

<211> 21

<212> PRT

<213> Homo sapiens

<400> 293

Pro Gly Thr Ser Ile Val Asn Leu Gly Thr Ser Gly Ile Pro Pro Ser
1 5 10 15

Leu Pro Glu Thr Thr
20

<210> 294

<211> 21

<212> PRT

<213> Homo sapiens

<400> 294

Pro Gly Thr Phe Thr Val Gln Pro Glu Thr Ser Glu Thr Pro Ser Ser
1 5 10 15

Leu Pro Gly Pro Thr
20

<210> 295

<211> 21

<212> PRT

<213> Homo sapiens

<400> 295

Pro Gly Thr Pro Thr Val Asp Leu Gly Thr Ser Gly Thr Pro Val Ser
1 5 10 15

Lys Pro Gly Pro Ser
20

<210> 296

<211> 21

<212> PRT

<213> Homo sapiens

<400> 296

Pro Gly Thr Pro Thr Val Tyr Leu Gly Ala Ser Lys Thr Pro Ala Ser
1 5 10 15

Ile Phe Gly Pro Ser
20

<210> 297

<211> 16

<212> PRT

<213> Homo sapiens

<400> 297

Pro Lys Pro Ala Thr Thr Phe Leu Pro Pro Leu Ser Glu Ala Thr Thr
1 5 10 15

<210> 298

<211> 21

<212> PRT

<213> Homo sapiens

<400> 298

Gln Ile Asn Phe His Ile Val Asn Trp Asn Leu Ser Asn Pro Asp Pro
1 5 10 15

Thr Ser Ser Glu Tyr
20

<210> 299

<211> 1794

<212> PRT

<213> Homo sapiens

<400> 299

Met Glu His Ile Thr Lys Ile Pro Asn Glu Ala Ala His Arg Gly Thr
1 5 10 15

Ile Arg Pro Val Lys Gly Pro Gln Thr Ser Thr Ser Pro Ala Ser Pro
20 25 30

Lys Gly Leu His Thr Gly Gly Thr Lys Arg Met Glu Thr Thr Thr Thr
35 40 45

Ala Leu Lys Thr Thr Thr Thr Ala Leu Lys Thr Thr Ser Arg Ala Thr
50 55 60

Leu Thr Thr Ser Val Tyr Thr Pro Thr Leu Gly Thr Leu Thr Pro Leu
65 70 75 80

Asn Ala Ser Arg Gln Met Ala Ser Thr Ile Leu Thr Glu Met Met Ile
85 90 95

Thr Thr Pro Tyr Val Phe Pro Asp Val Pro Glu Thr Thr Ser Ser Leu
 100 105 110

Ala Thr Ser Leu Gly Ala Glu Thr Ser Thr Ala Leu Pro Arg Thr Thr
 115 120 125

Pro Ser Val Leu Asn Arg Glu Ser Glu Thr Thr Ala Ser Leu Val Ser
 130 135 140

Arg Ser Gly Ala Glu Arg Ser Pro Val Ile Gln Thr Leu Asp Val Ser
 145 150 155 160

Ser Ser Glu Pro Asp Thr Thr Ala Ser Trp Val Ile His Pro Ala Glu
 165 170 175

Thr Ile Pro Thr Val Ser Lys Thr Thr Pro Asn Phe Phe His Ser Glu
 180 185 190

Leu Asp Thr Val Ser Ser Thr Ala Thr Ser His Gly Ala Asp Val Ser
 195 200 205

Ser Ala Ile Pro Thr Asn Ile Ser Pro Ser Glu Leu Asp Ala Leu Thr
 210 215 220

Pro Leu Val Thr Ile Ser Gly Thr Asp Thr Ser Thr Thr Phe Pro Thr
 225 230 235 240

Leu Thr Lys Ser Pro His Glu Thr Glu Thr Arg Thr Thr Trp Leu Thr
 245 250 255

His Pro Ala Glu Thr Ser Ser Thr Ile Pro Arg Thr Ile Pro Asn Phe
 260 265 270

Ser His His Glu Ser Asp Ala Thr Pro Ser Ile Ala Thr Ser Pro Gly
 275 280 285

Ala Glu Thr Ser Ser Ala Ile Pro Ile Met Thr Val Ser Pro Gly Ala
 290 295 300

369

Glu	Asp	Leu	Val	Thr	Ser	Gln	Val	Thr	Ser	Ser	Gly	Thr	Asp	Arg	Asn	305	310	315	320
Met	Thr	Ile	Pro	Thr	Leu	Thr	Leu	Ser	Pro	Gly	Glu	Pro	Lys	Thr	Ile	325	330	335	
Ala	Ser	Leu	Val	Thr	His	Pro	Glu	Ala	Gln	Thr	Ser	Ser	Ala	Ile	Pro	340	345	350	
Thr	Ser	Thr	Ile	Ser	Pro	Ala	Val	Ser	Arg	Leu	Val	Thr	Ser	Met	Val	355	360	365	
Thr	Ser	Leu	Ala	Ala	Lys	Thr	Ser	Thr	Thr	Asn	Arg	Ala	Leu	Thr	Asn	370	375	380	
Ser	Pro	Gly	Glu	Pro	Ala	Thr	Thr	Val	Ser	Leu	Val	Thr	His	Pro	Ala	385	390	395	400
Gln	Thr	Ser	Pro	Thr	Val	Pro	Trp	Thr	Thr	Ser	Ile	Phe	Phe	His	Ser	405	410	415	
Lys	Ser	Asp	Thr	Thr	Pro	Ser	Met	Thr	Thr	Ser	His	Gly	Ala	Glu	Ser	420	425	430	
Ser	Ser	Ala	Val	Pro	Thr	Pro	Thr	Val	Ser	Thr	Glu	Val	Pro	Gly	Val	435	440	445	
Val	Thr	Pro	Leu	Val	Thr	Ser	Ser	Arg	Ala	Val	Ile	Ser	Thr	Thr	Ile	450	455	460	
Pro	Ile	Leu	Thr	Leu	Ser	Pro	Gly	Glu	Pro	Glu	Thr	Thr	Pro	Ser	Met	465	470	475	480
Ala	Thr	Ser	His	Gly	Glu	Glu	Ala	Ser	Ser	Ala	Ile	Pro	Thr	Pro	Thr	485	490	495	
Val	Ser	Pro	Gly	Val	Pro	Gly	Val	Val	Thr	Ser	Leu	Val	Thr	Ser	Ser	500	505	510	
Arg	Ala	Val	Thr	Ser	Thr	Thr	Ile	Pro	Ile	Leu	Thr	Phe	Ser	Leu	Gly	515	520	525	

Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His Gly Thr Glu Ala
 530 535 540

Gly Ser Ala Val Pro Thr Val Leu Pro Glu Val Pro Gly Met Val Thr
 545 550 555 560

Ser Leu Val Ala Ser Ser Arg Ala Val Thr Ser Thr Thr Leu Pro Thr
 565 570 575

Leu Thr Leu Ser Pro Gly Glu Pro Glu Thr Thr Pro Ser Met Ala Thr
 580 585 590

Ser His Gly Ala Glu Ala Ser Ser Thr Val Pro Thr Val Ser Pro Glu
 595 600 605

Val Pro Gly Val Val Thr Ser Leu Val Thr Ser Ser Ser Gly Val Asn
 610 615 620

Ser Thr Ser Ile Pro Thr Leu Ile Leu Ser Pro Gly Glu Leu Glu Thr
 625 630 635 640

Thr Pro Ser Met Ala Thr Ser His Gly Ala Glu Ala Ser Ser Ala Val
 645 650 655

Pro Thr Pro Thr Val Ser Pro Gly Val Ser Gly Val Val Thr Pro Leu
 660 665 670

Val Thr Ser Ser Arg Ala Val Thr Ser Thr Thr Ile Pro Ile Leu Thr
 675 680 685

Leu Ser Ser Ser Glu Pro Glu Thr Thr Pro Ser Met Ala Thr Ser His
 690 695 700

Gly Val Glu Ala Ser Ser Ala Val Leu Thr Val Ser Pro Glu Val Pro
 705 710 715 720

Gly Met Val Thr Ser Leu Val Thr Ser Ser Arg Ala Val Thr Ser Thr
 725 730 735

Thr Ile Pro Thr Leu Thr Ile Ser Ser Asp Glu Pro Glu Thr Thr Thr
 740 745 750

Ser Leu Val Thr His Ser Glu Ala Lys Met Ile Ser Ala Ile Pro Thr
 755 760 765

Leu Ala Val Ser Pro Thr Val Gln Gly Leu Val Thr Ser Leu Val Thr
 770 775 780

Ser Ser Gly Ser Glu Thr Ser Ala Phe Ser Asn Leu Thr Val Ala Ser
 785 790 795 800

Ser Gln Pro Glu Thr Ile Asp Ser Trp Val Ala His Pro Gly Thr Glu
 805 810 815

Ala Ser Ser Val Val Pro Thr Leu Thr Val Ser Thr Gly Glu Pro Phe
 820 825 830

Thr Asn Ile Ser Leu Val Thr His Pro Ala Glu Ser Ser Ser Thr Leu
 835 840 845

Pro Arg Thr Thr Ser Arg Phe Ser His Ser Glu Leu Asp Thr Met Pro
 850 855 860

Ser Thr Val Thr Ser Pro Glu Ala Glu Ser Ser Ser Ala Ile Ser Thr
 865 870 875 880

Thr Ile Ser Pro Gly Ile Pro Gly Val Leu Thr Ser Leu Val Thr Ser
 885 890 895

Ser Gly Arg Asp Ile Ser Ala Thr Phe Pro Thr Val Pro Glu Ser Pro
 900 905 910

His Glu Ser Glu Ala Thr Ala Ser Trp Val Thr His Pro Ala Val Thr
 915 920 925

Ser Thr Thr Val Pro Arg Thr Thr Pro Asn Tyr Ser His Ser Glu Pro
 930 935 940

Asp Thr Thr Pro Ser Ile Ala Thr Ser Pro Gly Ala Glu Ala Thr Ser
 945 950 955 960

Asp Phe Pro Thr Ile Thr Val Ser Pro Asp Val Pro Asp Met Val Thr
965 970 975

Ser Gln Val Thr Ser Ser Gly Thr Asp Thr Ser Ile Thr Ile Pro Thr
980 985 990

Leu Thr Leu Ser Ser Gly Glu Pro Glu Thr Thr Thr Ser Phe Ile Thr
995 1000 1005

Tyr Ser Glu Thr His Thr Ser Ser Ala Ile Pro Thr Leu Pro Val
1010 1015 1020

Ser Pro Gly Ala Ser Lys Met Leu Thr Ser Leu Val Ile Ser Ser
1025 1030 1035

Gly Thr Asp Ser Thr Thr Thr Phe Pro Thr Leu Thr Glu Thr Pro
1040 1045 1050

Tyr Glu Pro Glu Thr Thr Ala Ile Gln Leu Ile His Pro Ala Glu
1055 1060 1065

Thr Asn Thr Met Val Pro Arg Thr Thr Pro Lys Phe Ser His Ser
1070 1075 1080

Lys Ser Asp Thr Thr Leu Pro Val Ala Ile Thr Ser Pro Gly Pro
1085 1090 1095

Glu Ala Ser Ser Ala Val Ser Thr Thr Thr Ile Ser Pro Asp Met
1100 1105 1110

Ser Asp Leu Val Thr Ser Leu Val Pro Ser Ser Gly Thr Asp Thr
1115 1120 1125

Ser Thr Thr Phe Pro Thr Leu Ser Glu Thr Pro Tyr Glu Pro Glu
1130 1135 1140

Thr Thr Ala Thr Trp Leu Thr His Pro Ala Glu Thr Ser Thr Thr
1145 1150 1155

Val	Ser	Gly	Thr	Ile	Pro	Asn	Phe	Ser	His	Arg	Gly	Ser	Asp	Thr
1160						1165					1170			
Ala	Pro	Ser	Met	Val	Thr	Ser	Pro	Gly	Val	Asp	Thr	Arg	Ser	Gly
1175						1180					1185			
Val	Pro	Thr	Thr	Thr	Ile	Pro	Pro	Ser	Ile	Pro	Gly	Val	Val	Thr
1190						1195					1200			
Ser	Gln	Val	Thr	Ser	Ser	Ala	Thr	Asp	Thr	Ser	Thr	Ala	Ile	Pro
1205						1210					1215			
Thr	Leu	Thr	Pro	Ser	Pro	Gly	Glu	Pro	Glu	Thr	Thr	Ala	Ser	Ser
1220						1225					1230			
Ala	Thr	His	Pro	Gly	Thr	Gln	Thr	Gly	Phe	Thr	Val	Pro	Ile	Arg
1235						1240					1245			
Thr	Val	Pro	Ser	Ser	Glu	Pro	Asp	Thr	Met	Ala	Ser	Trp	Val	Thr
1250						1255					1260			
His	Pro	Pro	Gln	Thr	Ser	Thr	Pro	Val	Ser	Arg	Thr	Thr	Ser	Ser
1265						1270					1275			
Phe	Ser	His	Ser	Ser	Pro	Asp	Ala	Thr	Pro	Val	Met	Ala	Thr	Ser
1280						1285					1290			
Pro	Arg	Thr	Glu	Ala	Ser	Ser	Ala	Val	Leu	Thr	Thr	Ile	Ser	Pro
1295						1300					1305			
Gly	Ala	Pro	Glu	Met	Val	Thr	Ser	Gln	Ile	Thr	Ser	Ser	Gly	Ala
1310						1315					1320			
Ala	Thr	Ser	Thr	Thr	Val	Pro	Thr	Leu	Thr	His	Ser	Pro	Gly	Met
1325						1330					1335			
Pro	Glu	Thr	Thr	Ala	Leu	Leu	Ser	Thr	His	Pro	Arg	Thr	Glu	Thr
1340						1345					1350			
Ser	Lys	Thr	Phe	Pro	Ala	Ser	Thr	Val	Phe	Pro	Gln	Val	Ser	Glu
1355						1360					1365			

Thr Thr Ala Ser Leu Thr Ile Arg Pro Gly Ala Glu Thr Ser Thr
1370 1375 1380

Ala Leu Pro Thr Gln Thr Thr Ser Ser Leu Phe Thr Leu Leu Val
1385 1390 1395

Thr Gly Thr Ser Arg Val Asp Leu Ser Pro Thr Ala Ser Pro Gly
1400 1405 1410

Val Ser Ala Lys Thr Ala Pro Leu Ser Thr His Pro Gly Thr Glu
1415 1420 1425

Thr Ser Thr Met Ile Pro Thr Ser Thr Leu Ser Leu Gly Leu Leu
1430 1435 1440

Glu Thr Thr Gly Leu Leu Ala Thr Ser Ser Ser Ala Glu Thr Ser
1445 1450 1455

Thr Ser Thr Leu Thr Leu Thr Val Ser Pro Ala Val Ser Gly Leu
1460 1465 1470

Ser Ser Ala Ser Ile Thr Thr Asp Lys Pro Gln Thr Val Thr Ser
1475 1480 1485

Trp Asn Thr Glu Thr Ser Pro Ser Val Thr Ser Val Gly Pro Pro
1490 1495 1500

Glu Phe Ser Arg Thr Val Thr Gly Thr Thr Met Thr Leu Ile Pro
1505 1510 1515

Ser Glu Met Pro Thr Pro Pro Lys Thr Ser His Gly Glu Gly Val
1520 1525 1530

Ser Pro Thr Thr Ile Leu Arg Thr Thr Met Val Glu Ala Thr Asn
1535 1540 1545

Leu Ala Thr Thr Gly Ser Ser Pro Thr Val Ala Lys Thr Thr Thr
1550 1555 1560

Thr Phe Asn Thr Leu Ala Gly Ser Leu Phe Thr Pro Leu Thr Thr
1565 1570 1575

Pro Gly Met Ser Thr Leu Ala Ser Glu Ser Val Thr Ser Arg Thr
1580 1585 1590

Ser Tyr Asn His Arg Ser Trp Ile Ser Thr Thr Ser Ser Tyr Asn
1595 1600 1605

Arg Arg Tyr Trp Thr Pro Ala Thr Ser Thr Pro Val Thr Ser Thr
1610 1615 1620

Phe Ser Pro Gly Ile Ser Thr Ser Ser Ile Pro Ser Ser Thr Ala
1625 1630 1635

Ala Thr Val Pro Phe Met Val Pro Phe Thr Leu Asn Phe Thr Ile
1640 1645 1650

Thr Asn Leu Gln Tyr Glu Glu Asp Met Arg His Pro Gly Ser Arg
1655 1660 1665

Lys Phe Asn Ala Thr Glu Arg Glu Leu Gln Gly Leu Leu Lys Pro
1670 1675 1680

Leu Phe Arg Asn Ser Ser Leu Glu Tyr Leu Tyr Ser Gly Cys Arg
1685 1690 1695

Leu Ala Ser Leu Arg Pro Glu Lys Asp Ser Ser Ala Met Ala Val
1700 1705 1710

Asp Ala Ile Cys Thr His Arg Pro Asp Pro Glu Asp Leu Gly Leu
1715 1720 1725

Asp Arg Glu Arg Leu Tyr Trp Glu Leu Ser Asn Leu Thr Asn Gly
1730 1735 1740

Ile Gln Glu Leu Gly Pro Tyr Thr Leu Asp Arg Asn Ser Leu Tyr
1745 1750 1755

Val	Asn	Gly	Phe	Thr	His	Arg	Ser	Ser	Met	Pro	Thr	Thr	Ser	Thr
1760						1765					1770			

Pro Gly Thr Ser Thr Val Asp Val Gly Thr Ser Gly Thr Pro Ser
 1775 1780 1785

Ser Ser Pro Ser Pro Thr
 1790

<210> 300

<211> 284

<212> PRT

<213> Homo sapiens

<400> 300

Ile Thr Leu Leu Arg Asp Ile Gln Asp Lys Val Thr Thr Leu Tyr Lys
 1 5 10 15

Gly Ser Gln Leu His Asp Thr Phe Arg Phe Cys Leu Val Thr Asn Leu
 20 25 30

Thr Met Asp Ser Val Leu Val Thr Val Lys Ala Leu Phe Ser Ser Asn
 35 40 45

Leu Asp Pro Ser Leu Val Glu Gln Val Phe Leu Asp Lys Thr Leu Asn
 50 55 60

Ala Ser Phe His Trp Leu Gly Ser Thr Tyr Gln Leu Val Asp Ile His
 65 70 75 80

Val Thr Glu Met Glu Ser Ser Val Tyr Gln Pro Thr Ser Ser Ser Ser
 85 90 95

Thr Gln His Phe Tyr Leu Asn Phe Thr Ile Thr Asn Leu Pro Tyr Ser
 100 105 110

Gln Asp Lys Ala Gln Pro Gly Thr Thr Asn Tyr Gln Arg Asn Lys Arg
 115 120 125

Asn Ile Glu Asp Ala Leu Asn Gln Leu Phe Arg Asn Ser Ser Ile Lys
 130 135 140

Ser Tyr Phe Ser Asp Cys Gln Val Ser Thr Phe Arg Ser Val Pro Asn
 145 150 155 160

Arg His His Thr Gly Val Asp Ser Leu Cys Asn Phe Ser Pro Leu Ala
 165 170 175

Arg Arg Val Asp Arg Val Ala Ile Tyr Glu Glu Phe Leu Arg Met Thr
 180 185 190

Arg Asn Gly Thr Gln Leu Gln Asn Phe Thr Leu Asp Arg Ser Ser Val
 195 200 205

Leu Val Asp Gly Tyr Ser Pro Asn Arg Asn Glu Pro Leu Thr Gly Asn
 210 215 220

Ser Asp Leu Pro Phe Trp Ala Val Ile Leu Ile Gly Leu Ala Gly Leu
 225 230 235 240

Leu Gly Leu Ile Thr Cys Leu Ile Cys Gly Val Leu Val Thr Thr Arg
 245 250 255

Arg Arg Lys Lys Glu Gly Glu Tyr Asn Val Gln Gln Gln Cys Pro Gly
 260 265 270

Tyr Tyr Gln Ser His Leu Asp Leu Glu Asp Leu Gln
 275 280

<210> 301

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 301
gtctctatgt caatgggttc accc

24

<210> 302

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 302
tagctgctct ctgtccagtc c

21

<210> 303

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 303
ggacaaggtc accacactct ac

22

<210> 304

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 304
gcagatcctc caggtctagg tgtg

24

<210> 305

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 305
gtctctatgt caatggtttc accc

24

<210> 306

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 306
tagctgctct ctgtccagtc c

21

<210> 307

<211> 468

<212> DNA

<213> Homo sapiens

<400> 307
actgctggcc ctctcctggt gccattcacc ctcaacttca ccatacacia cctgcagtat

60

gaggaggaca tgcacgcgcc tggatctagg aagttcaaca ccacagagag ggtcctgcag

120

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ggctctgctta gtcccatatt caagaacacc agtggtggcc ctctgtactc tggctgcaga      180
ctgacctctc tcaggtctga gaaggatgga gcagccactg gagtggatgc catctgcatc      240
catcatcttg accccaaaag ccctggactc aacagagagc ggctgtactg ggagctgagc      300
cgactgacca atggcatcaa agagctgggc ccctacaccc tggacaggaa cagtctctat      360
gtcaatgggtt tcacccatcg gacctctgtg cccaccacca gcactcctgg gacctccaca      420
gtggaccttg gaacctcagg gactccattc tccctcccaa gccccgca                    468

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<210> 308

<211> 156

<212> PRT

<213> Homo sapiens

<400> 308

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Thr Ala Gly Pro Leu Leu Val Pro Phe Thr Leu Asn Phe Thr Ile Thr
1          5          10          15

```

```

Asn Leu Gln Tyr Glu Glu Asp Met His Arg Pro Gly Ser Arg Lys Phe
20          25          30

```

```

Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu Ser Pro Ile Phe Lys
35          40          45

```

```

Asn Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys Arg Leu Thr Ser Leu
50          55          60

```

```

Arg Ser Glu Lys Asp Gly Ala Ala Thr Gly Val Asp Ala Ile Cys Ile
65          70          75          80

```

```

His His Leu Asp Pro Lys Ser Pro Gly Leu Asn Arg Glu Arg Leu Tyr
85          90          95

```

```

Trp Glu Leu Ser Arg Leu Thr Asn Gly Ile Lys Glu Leu Gly Pro Tyr
100         105         110

```

381

Thr Leu Asp Arg Asn Ser Leu Tyr Val Asn Gly Phe Thr His Arg Thr
115 120 125

Ser Val Pro Thr Thr Ser Thr Pro Gly Thr Ser Thr Val Asp Leu Gly
130 135 140

Thr Ser Gly Thr Pro Phe Ser Leu Pro Ser Pro Ala
145 150 155